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How Do Securities Laws Influence Affect, Happiness, & Trust?

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PETER H. HUANG*

How do Securities Laws Influence Affect, Happiness, & Trust?

ABSTRACT

This Article advocates that securities regulators promulgate rules based upon taking into consideration their impacts upon investors' and others' affect, happiness, and trust. Examples of these impacts are consumer optimism, financial stress, anxiety over how thoroughly securities regulators deliberate over proposed rules, investor confidence in securities disclosures, market exuberance, social moods, and subjective well-being. These variables affect and are affected by traditional financial variables, such as consumer debt, expenditures, and wealth; corporate investment; initial public offerings; and securities market demand, liquidity, prices, supply, and volume. This Article proposes that securities regulators can and should evaluate rules based upon measures of affect, happiness, and trust in addition to standard observable financial variables. This Article concludes that the organic statutes of the United States Securities and Exchange Commission are indeterminate despite mandating that federal securities laws consider efficiency among other goals. This Article illustrates analysis of affective impacts of these financial regulatory policies: mandatory securities disclosures; gun-jumping rules for publicly registered offerings; financial education or literacy campaigns; statutory or judicial default rules and menus; and continual reassessment and revision of rules. These regulatory policies impact and are impacted by investors' and other people's affect, happiness, and trust. Thus, securities regulators can and should evaluate such affective impacts to design effective legal policy.

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I. INTRODUCTION

THE SARBANES-OXLEY ACT OF 2002 (SOX),[1] in particular, section 404's internal financial control provisions, has generated a great deal of controversy. Four legal scholars considered evidence from empirical studies utilizing Cost-Benefit Analysis (CBA),[2] to conclude that SOX had modest benefits that were hard to document, but very large measurable compliance costs.[3] Other corporate law scholars expressed opposite attitudes towards SOX.[4] This debate over SOX raises a pair of related foundational normative questions, namely, what should be the appropriate way to evaluate securities laws, and what should be the role of CBA in the evaluation of securities laws.

CBA is "a set of procedures for defining and comparing benefits and costs. In this sense it is a way of organizing and analyzing data as an aid to thinking."[5] Kenneth J. Arrow, a 1972 Nobel Laureate in economics,[6] stated that "some sense of

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1. Pub. L. No. 107-204, 116 Stat. 745 (codified as amended in scattered sections of 11, 15, 18, 28, and 29 U.S.C.).

2. Robert Charles Clark, *Corporate Governance Changes in the Wake of the Sarbanes-Oxley Act: A Morality Tale for Policymakers Too*, 22 GA. ST. U. L. REV. 251 (2005) (proposing that future regulations emulate Title VII of SOX in requiring empirical research and corresponding responsive adjustments or improvements); Donald C. Langevoort, *Internal Controls After Sarbanes-Oxley: Revisiting* Corporate Law's *"Duty of Care as Responsibility for Systems,"* 31 J. CORP. L. 949 (2006) (explaining controversy over Part 404 of SOX in terms of indeterminacy over costs and benefits of internal controls); Larry E. Ribstein, *Market vs. Regulatory Responses to Corporate Fraud: A Critique of the Sarbanes-Oxley Act of 2002*, 28 J. CORP. L. 1 (2002) (arguing that SOX is unlikely to do a better job than self-correcting markets); Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 YALE L.J. 1521 (2005) (evaluating substantive corporate governance mandates of SOX based upon relevant empirical accounting and finance literature); *see also* Larry E. Ribstein, *Bubble Laws*, 40 HOUS. L. REV. 77, 83–90 (2003); Larry E. Ribstein, *International Implications of Sarbanes-Oxley: Raising the Rent on US Law*, 3 J. CORP. L. STUD. 299 (2003); Larry E. Ribstein, *Sarbanes-Oxley After Three Years*, 2005 NEW ZEALAND L. REV. 365; Larry E. Ribstein, *Sarbox: The Road to Nirvana*, 2004 MICH. ST. L. REV. 279.

3. *See generally* HENRY N. BUTLER & LARRY E. RIBSTEIN, THE SARBANES-OXLEY DEBACLE (2006).

4. *See* Robert B. Ahdieh, *From "Federalization" to "Mixed Governance" in Corporate Law: A Defense of Sarbanes-Oxley*, 53 BUFF. L. REV. 721 (2005); William W. Bratton, *Enron, Sarbanes-Oxley and Accounting: Rules Versus Principles Versus Rents*, 48 VILL. L. REV. 1023 (2003) (finding SOX begins a political process intended over time to produce a new regulatory regime); Lawrence A. Cunningham, *The Sarbanes-Oxley Yawn: Heavy Rhetoric, Light Reform (And it Might Just Work)*, 35 CONN. L. REV. 915 (2003) (reading SOX as being a modest act); Brett H. McDonnell, *Sarbanes-Oxley, Fiduciary Duties, and the Conduct of Officers and Directors*, EUR. BUS. ORG. L. REV. (forthcoming) (concluding that although SOX imposes significant compliance costs, it also results in beneficial changes in the behaviors of accountants, directors, and officers); Brett H. McDonnell, *SOX Appeals*, 2004 MICH. ST. L. REV. 505 (explaining how SOX induced regulators and private actors that were better informed than Congress to undertake a new reform dynamic spurring desirable changes in U.S. corporate governance); Robert Prentice, *Sarbanes-Oxley: The Evidence Regarding the Impact of SOX 404*, 29 CARDOZO L. REV. 703 (2007) (finding that although accurately performing CBA of SOX section 404 is currently impossible, real benefits have often been overlooked while implementation costs have been overstated).

5. RICHARD O. ZERBE, JR. & DWIGHT D. DIVELY, BENEFIT-COST ANALYSIS IN THEORY AND PRACTICE 2 (1994). *See generally* WILLIAM KENNETH BELLINGER, THE ECONOMIC ANALYSIS OF PUBLIC POLICY 151–264 (2007); ANTHONY E. BOARDMAN, COST-BENEFIT ANALYSIS: CONCEPTS AND PRACTICE (2d ed. 2001); ROBERT J. BRENT, APPLIED COST-BENEFIT ANALYSIS (2d ed. 2006); E.J. MISHAN & EUSTON QUAH, COST-BENEFIT ANALYSIS (5th ed. 2007); RICHARD W. TRESCH, PUBLIC SECTOR ECONOMICS 393–421 (2008); RICHARD O. ZERBE, JR. & ALLEN S. BELLAS, A PRIMER FOR BENEFIT-COST ANALYSIS (2006).

6. The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1972, http://nobelprize.org/economics/laureates/1972/index.html (last visited Feb. 10, 2008).

rational balancing of ends and means must be understood to play a major role in our understanding of ourselves and our social role."[7] Most economists advocate that policy makers and regulators can and should engage in CBA involving estimating quantitatively monetary costs and benefits.[8] A creative recent application of CBA to corporate governance reform examines costs and benefits to increasing diversity of corporate boards of directors.[9]

The important and non-trivial question of whether the Securities and Exchange Commission (SEC) should routinely engage in formal CBA is already the subject of another article.[10] Thus, this Article brackets that question and accepts as a working hypothesis that such U.S. financial regulators as the SEC can and should benefit from utilizing (or in fact inevitably will utilize, at least implicitly) some form of CBA.[11] This is a reasonable hypothesis because there are several economic, legal, philosophical, and pragmatic arguments in favor of informing policy by some type of CBA.[12] But, this is a hypothesis that could be false either because CBA is too costly or difficult to consistently and successfully implement. In other words, CBA itself might fail a CBA test because its costs may exceed its benefits. Whether CBA would pass a CBA is an open empirical question.[13]

Independent of whether securities regulators can, do, should, or will engage in CBA, this Article advocates that securities regulators also should consider affective and subjective well-being impacts of policies, an effort that would entail measuring investors' confidence, happiness, and moods in addition to respecting process concerns.[14] This Article thus promotes a different and novel way to evaluate securities regulations than is the current practice.

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7. *See* KENNETH J. ARROW, THE LIMITS OF ORGANIZATION 15 (1974).

8. *See, e.g.*, Luigi Zingales, *The Costs and Benefits of Financial Market Regulation* (Eur. Corp. Governance Inst., Law Working Paper No. 21/2004, 2004), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=536682.

9. Lisa M. Fairfax, *The Bottom Line on Board Diversity: A Cost-Benefit Analysis of the Business Rationales for Diversity on Corporate Boards*, 2005 WIS. L. REV. 795, 837–51.

10. *See generally* Edward Sherwin, *The Cost-Benefit Analysis of Financial Regulation: Lessons from the SEC's Stalled Mutual Fund Reform Effort*, 12 STAN. J.L. BUS. & FIN. 1 (2006).

11. *Id.* at 14–20. The thematic focus of the Securities Regulation Section of the American Association of Law Schools annual conference was: "Do The Benefits of Securities Regulation in the United States Warrant the Costs?" (Jan. 4, 2006). Background Materials on Current Projects, Harvard Law School, http://www.law.harvard.edu/faculty/hjackson/projects.php (last visited Feb. 10, 2008).

12. *See, e.g.*, Kenneth J. Arrow et al., *Is There a Role for Benefit-Cost Analysis in Environmental, Health, and Safety Regulation?*, 272 SCI. 221 (1996) (suggesting that CBA can play an important role in helping to inform regulatory decision-making if utilized appropriately); *see also* JONATHAN BARON, JUDGMENT MISGUIDED: INTUITION AND ERROR IN PUBLIC DECISION MAKING 189–93 (1998) (explaining the advantages of CBA); CASS R. SUNSTEIN, THE COST-BENEFIT STATE: THE FUTURE OF REGULATORY PROTECTION 25–26 (2002) ("The strongest arguments for CBA seem to rest not with neoclassical economics but with common sense, informed by behavioral economics and cognitive psychology."). *But see* Amy Sinden, *Cass Sunstein's Cost-Benefit Lite: Economics for Liberals*, 29 COLUM. J. ENVTL. L. 191 (2004) (critiquing Sunstein).

13. *See generally* WHAT'S ECONOMICS WORTH? VALUING POLICY RESEARCH (Philip G. Pardey & Vincent H. Smith eds., 2004).

14. *See generally* Douglas A. Kysar, *Preferences for Processes: The Process/Product Distinction and the Regulation of Consumer Choice*, 118 HARV. L. REV. 525 (2004).

Part II analyzes how and why securities laws impact investors' and others' affect, happiness, and trust in addition to why those impacts matter for policy evaluation. Part III provides several examples of other recent securities regulations controversies in addition to SOX that implicate the questions of how to evaluate securities regulations and how CBA should fit into such evaluations. Part IV analyzes whether the SEC and other U.S. financial regulators currently engage in some type of CBA, and provides background about utilizing CBA as the metric for evaluating financial policy. Part V analyzes whether the SEC is required by the language of its organizing statutes to engage only in CBA, concluding that there is considerable textual ambiguity over this question and a lack of guidance about how to balance multiple and possibly conflicting objectives in evaluating SEC rules and regulations. Part VI illustrates affective and subjective well-being impacts for various categories of securities regulations. A conclusion summarizes this Article.

II. AFFECT, HAPPINESS, & TRUST

A. *Affective Impacts*

This Article utilizes the phrase "affective impacts" in a general sense to refer to not only affect, but also emotions, feelings, and moods. A widely accepted "circumplex" model of affect proposes that affective concepts can be organized according to a circular structure, in a two-dimensional plane with the horizontal axis depicting valence ranging from distress to pleasant, and the vertical axis indicating the degree of arousal ranging from low to high.[15] For example, happiness can involve high arousal as with Western concepts of elation and excitement, but happiness can also involve low arousal, as with Eastern ideas of calmness and serenity. Examples of positive affect include awe,[16] exuberance,[17] gratitude,[18] and happiness;[19] negative affect includes envy,[20] guilt,[21] regret,[22] shame,[23] and stress.[24]

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15. *See* Jonathan Posner et al., *The Circumplex Model of Affect: An Integrative Approach to Affective Neuroscience, Cognitive Development, and Psychopathology*, 17 DEV. & PSYCHOPATHOLOGY 715 (2005). *See generally* James A. Russell, *A Circumplex Model of Affect*, 29 J. PERSONALITY & SOC. PSYCHOL. 1161 (1980).

16. *See* Dacher Keltner & Jonathan Haidt, *Approaching Awe, a Moral, Spiritual, and Aesthetic Emotion*, 17 COGNITION & EMOTION 297 (2003).

17. *See, e.g.*, Peter H. Huang, *Regulating Irrational Exuberance and Anxiety in Securities Markets*, *in* THE LAW AND ECONOMICS OF IRRATIONAL BEHAVIOR 501, 520–23 (Francesco Parisi & Vernon L. Smith eds., 2005).

18. *See generally* THE PSYCHOLOGY OF GRATITUDE (Robert A. Emmons & Michael E. McCullough eds., 2004).

19. *See, e.g.*, JONATHAN HAIDT, THE HAPPINESS HYPOTHESIS: FINDING MODERN TRUTH IN ANCIENT WISDOM (2006).

20. *See, e.g.*, Vai-Lam Mui, *The Economics of Envy*, 26 J. ECON. BEHAV. & ORG. 311 (1995).

21. *See, e.g.*, Peter H. Huang, *Trust, Guilt, and Securities Regulation*, 151 U. PA. L. REV. 1059 (2003).

22. *See, e.g.*, Chien-Huang Lin et al., *Multiple Reference Points in Investor Regret*, 27 J. ECON. PSYCHOL. 781 (2006).

23. *See, e.g.*, Peter H. Huang & Christopher J. Anderson, *A Psychology of Emotional Legal Decision Making: Revulsion and Saving Face in Legal Theory and Practice*, 90 MINN. L. REV. 1045 (2006) (reviewing MARTHA C. NUSSBAUM, HIDING FROM HUMANITY: DISGUST, SHAME, AND THE LAW (2004)).

It might seem that of all categories of regulation, securities law is an area in which regulators do not have to analyze affective considerations because there already exists a natural metric and yardstick for evaluating outcomes, namely aggregate levels of financial and economic variables, such as consumption, income, investment, liquidity, prices, trading volume, and wealth. In addition, many people believe that equilibrium prices of competitive stock markets already reflect all relevant fundamental information for accurately pricing stocks and only that information.[25] But, there is much empirical data suggesting that investor moods alter levels of such traditional economic and financial variables as corporate finance,[26] including corporate investment, initial public offerings,[27] mergers and acquisitions, individual debt, market liquidity, and securities demand. In other words, "[s]tock [market] prices reflect both (fundamental) value and sentiment."[28] Seventy years

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24. *See generally* J. Douglas Bremner, Does Stress Damage the Brain?: Understanding Trauma-Related Disorders from a Mind-Body Perspective (2002); Bruce S. McEwen, The End of Stress as we Know It (2002); Richard O'Connor, Undoing Perpetual Stress: The Missing Connection Between Depression, Anxiety, and 21st Century Illness (2005); Robert M. Sapolsky, Why Zebras Don't Get Ulcers (3d ed. 2004); Hans Selye, The Stress of Life (rev. ed. 1984); Gene Wallenstein, Mind, Stress, & Emotions: The New Science of Mood (2003); Alex J. Zautra, Emotions, Stress, and Health (2003).

25. *See, e.g.*, Ronald J. Gilson & Bernard S. Black, (Some of) the Essentials of Finance and Investment 136–84 (1993).

26. *See* Hersh Shefrin, Behavioral Corporate Finance: Decisions that Create Value (2007).

27. John R. Nofsinger, The Psychology of Investing 86–96 (2d ed. 2005); John R. Nofsinger, *Social Mood and Financial Economics*, 6 J. Behav. Fin. 144, 147–49, 152–55, 157–58 (2005). *See generally* Lucy F. Ackert et al., *Emotion and Financial Markets*, Fed. Res. Bank of Atlanta Econ. Rev., Second Q. 2003, at 33; Kevin Au et al., *Mood in Foreign Exchange Trading: Cognitive Processes and Performance*, 91 Org. Behav. & Hum. Decision Processes 322 (2003); Editorial Commentary, *The Influence of Affect on Investor Decision-Making*, 5 J. Behav. Fin. 70 (2004); Frank Fehle et al., *Can Companies Influence Investor Behaviour Through Advertising? Super Bowl Commercials and Stock Returns*, 11 Eur. Fin. Mgmt. 625 (2005) (finding significant abnormal stock returns for companies that advertise consistent with mood and attention effects); Melissa L. Finucane, *Mad Cows, Mad Corn, & Mad Money: Applying What We Know About the Perceived Risk of Technologies to the Perceived Risk of Securities*, 3 J. Psychol. & Fin. Mkts. 236 (2002); Baruch Fischhoff et al., *Investing in Frankenfirms: Predicting Socially Unacceptable Risks*, 2 J. Psychol. & Fin. Mkts. 100 (2001); Brian M. Lucey & Michael Dowling, *The Role of Feelings in Investor Decision-Making*, 19 J. Econ. Surveys 211 (2005); Donald G. MacGregor et al., *Imagery, Affect, and Financial Judgment*, 1 J. Psychol. & Fin. Mkts. 104 (2000); Ulrike Malmendier & Geoffrey Tate, *CEO Overconfidence and Corporate Investment*, 60 J. Fin. 2661 (2005) (finding that overconfident CEOs engage in excessive corporate investment when they have abundant internal funds, but limit corporate investment when they require external financing); Ulrike Malmendier & Geoffrey Tate, *Does Overconfidence Affect Corporate Investment? CEO Overconfidence Measures Revisited*, 11 Eur. Fin. Mgmt. 649 (2005) (presenting supplementary evidence about how CEO portrayals in popular financial press are related to overconfident investment decisions); Rajnish Mehra & Raaj Sah, *Mood Fluctuations, Projection Bias, and Volatility of Equity Prices*, 26 J. Econ. Dynamics & Control 869 (2002); Richard L. Peterson, *"Buy on the Rumor:" Anticipatory Affect and Investor Behavior*, 3 J. Psychol. & Fin. Mkts. 218 (2002); Richard J. Rosen, *Merger Momentum and Investor Sentiment: The Stock Market Reaction to Merger Announcements*, 79 J. Bus. 987 (2006); Glenn Boyle et al., Emotion, Fear and Superstition in the New Zealand Stockmarket (Feb. 18, 2003) (unpublished manuscript, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=388581) (analyzing New Zealand stock market reaction to five economically-neutral events that psychological research indicates have varying degrees of influence on people's emotions and moods).

28. Kenneth L. Fisher & Meir Statman, *Sentiment, Value, and Market-Timing*, J. Investing, Fall 2004, at 10.

ago, a famous macroeconomist John Maynard Keynes utilized the phrase "animal spirits" to describe investor optimism or pessimism when he stated that:

> *Even apart from the instability due to speculation, there is the instability due to the characteristic of human nature that a large proportion of our positive activities depend on spontaneous optimism rather than on a mathematical expectation, whether moral or hedonistic or economic. Most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as a result of animal spirits—of a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities.*[29]

Noted economist John Kenneth Galbraith believed that there is not much that securities regulators can do about financial euphoria.[30] In contrast, several legal scholars have proposed that securities regulators can and should regulate financial market euphoria.[31]

Recent evidence suggests that relationships between affective considerations and financial economic variables not only exist, but also run in both directions. There is a growing body of intriguing empirical data that analyzes whether and to what extent local astronomical and meteorological conditions are correlated with market index returns on international financial exchanges.[32] There is medical and psycho-

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29. JOHN MAYNARD KEYNES, THE GENERAL THEORY OF EMPLOYMENT INTEREST AND MONEY 161 (1936).

30. JOHN KENNETH GALBRAITH, A SHORT HISTORY OF FINANCIAL EUPHORIA 108 (Viking Penguin 1993) (1990).

31. *See generally* Theresa A. Gabaldon, *John Law, With A Tulip, In the South Seas: Gambling and the Regulation of Euphoric Market Transactions*, 26 J. CORP. L. 225 (2001); Theresa A. Gabaldon, *The Role of Law in Managing Market Moods: The Whole Story of Jason, Who Bought High*, 69 GEO. WASH. L. REV. 111 (2000) (book review); Donald C. Langevoort, *Taming the Animal Spirits of the Stock Markets: A Behavioral Approach to Securities Regulation*, 97 NW. U. L. REV. 135 (2002).

32. *See* Melanie Cao & Jason Wei, *An Expanded Study on the Stock Market Temperature Anomaly*, 22 RES. FIN. 73 (2005) (expanding on and confirming their previous research to include nineteen additional financial markets); Melanie Cao & Jason Wei, *Stock Market Returns: A Note on Temperature Anomaly*, 29 J. BANKING & FIN. 1559 (2005) (finding that for eight international stock markets, returns are statistically significantly and negatively correlated with temperature); Ilia D. Dichev & Troy D. Janes, *Lunar Cycle Effects in Stock Returns*, J. PRIVATE EQUITY, Fall 2003, at 8 (finding that returns are significantly higher, on the magnitude of 5% to 10% on an annualized basis, around new moon dates as compared to full moon dates for all major U.S. stock indices over their entire available history); Michael Dowling & Brian M. Lucey, *Weather, Biorhythms and Stock Returns: Some Preliminary Irish Evidence*, 14 INT'L REV. FIN. ANALYSIS 337 (2005) (examining relationship between eight proxy variables for investor mood, based on weather, biorhythms, and beliefs, and daily Irish stock returns from 1988 to 2001, and finding that some variables proposed in recent literature, rain and time changes around daylight savings have minor, but significant influences); William N. Goetzmann & Ning Zhu, *Rain or Shine: Where is the Weather Effect?*, 11 EUR. FIN. MGMT. 559 (2005) (finding and interpreting evidence that behavior of market-makers, rather than individual investors, may be responsible for observed relationship between stock market returns and weather); David Hirshleifer & Tyler Shumway, *Good Day Sunshine: Stock Returns and the Weather*, 58 J. FIN. 1009 (2003) (finding that morning sunshine at a country's leading stock exchange is strongly, positively correlated with stock market index returns that day at twenty-six stock ex-

logical evidence that weather affects people's moods and behavior.[33] There is also field evidence that weather affects reviewers' judgments and decisions about college applicants.[34] Conversely, it is intuitive that financial economic variables impact people's affect, emotions, moods, and subjective well-being.[35] For example, empirical research finds that consumer personal debt can be very stressful. One study finds that heads of households with greater outstanding non-mortgage credit debt

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changes internationally from 1982–97); Mark J. Kamstra et al., *Losing Sleep at the Market: The Daylight Saving Anomaly*, 90 AM. ECON. REV. 1005 (2000) (showing that so-called weekend effect in terms of lower-than-expected Friday-to-Monday stock market returns is particularly pronounced for two weekends involving daylight-savings clock changes); Mark J. Kamstra et al., *Losing Sleep at the Market: The Daylight Saving Anomaly: Reply*, 92 AM. ECON. REV. 1257 (2002) (revisiting the issue of whether daylight-saving-time changes impact financial markets and concluding that evidence indicates they do); Mark J. Kamstra et al., *Winter Blues: A SAD Stock Market Cycle*, 93 AM. ECON. REV. 324 (2003); Edward M. Saunders, Jr., *Stock Prices and Wall Street Weather*, 83 AM. ECON. REV. 1337 (1993) (providing the first study to empirically examine the relationship between the amount of sunshine and stock market returns, finding that less cloud cover in New York City is associated with increased returns for major stock market indices of exchanges based in New York City); Kathy Yuan et al., *Are Investors Moonstruck? Lunar Phases and Stock Returns*, 13 J. EMPIRICAL FIN. 1 (2006) (providing evidence for a global sample of forty-eight countries that stock returns are lower by 3% to 5% per annum on days around a full moon than on days around a new moon); Anna Krivelyova & Cesare Robotti, *Playing the Field: Geomagnetic Storms and the Stock Market* (Fed. Reserve Bank of Atlanta, Working Paper No. 2003-5b, 2003) (finding empirical evidence that unusually high levels of geomagnetic storm activity have a statistically and economically significant negative impact on the next week's returns for all U.S. stock market indices); Piman Limpaphayom et al., Gloom and Doom? Local Weather and Futures Trading (2005) (unpublished manuscript) (providing direct evidence that local weather affects investor behavior by finding that effective bid-ask spreads increase on windy days and that sky cover and wind are positively related to futures floor traders' incomes and market timing abilities). *But see* Walter Krämer & Ralf Runde, *Stocks and the Weather: An Exercise in Data Mining or yet Another Capital Market Anomaly?*, 22 EMPIRICAL ECON. 637 (1997) (utilizing German data in an attempt to replicate findings that stock prices are systematically affected by local weather, and finding that no systematic relationship seems to exist); Reinhold P. Lamb et al., *Don't Lose Sleep on It: A Re-Examination of the Daylight Savings Time Anomaly*, 14 APPLIED FIN. ECON. 443 (2004) (finding that neither consistency nor magnitude and statistical significance of a daylight savings stock market anomaly survives serious scrutiny); Tim Loughran & Paul Schultz, *Weather, Stock Returns, and the Impact of Localized Trading Behavior*, 39 J. FIN. & QUANTITATIVE ANALYSIS 343, 345, 355–62 (2004) (finding little evidence that cloudy weather in a company's headquarters affects its stock returns); Angel Pardo & Enric Valor, *Spanish Stock Returns: Where is the Weather Effect?*, 9 EUR. FIN. MGMT. 117 (2003) (finding no evidence indicating that sunshine hours and humidity levels influence Spanish stock market prices under both an open outcry trading system or computerized and decentralized trading system); J. Michael Pinegar, *Losing Sleep at the Market: Comment*, 92 AM. ECON. REV. 1251 (2002) (reporting daylight savings stock market anomaly is not robust); Mark A. Trombley, *Stock Prices and Wall Street Weather: Additional Evidence*, 36 Q.J. BUS. & ECON. 11 (1997) (presenting evidence indicating that the relationship between stock returns and Wall Street weather is neither clear nor strong); Ekrem Tufan & Bahattin Hamarat, *Do Cloudy Days Affect Stock Exchange Returns: Evidence from the Istanbul Stock Exchange*, 2 J. NAVAL SCI. & ENGINEERING 117 (2004) (finding that cloudy days neither cause nor are related to the Istanbul Stock Exchange 100 index returns).

33. *See, e.g.*, Matthew C. Keller et al., *A Warm Heart and a Clear Head: The Contingent Effects of Weather on Mood and Cognition*, 16 PSYCHOL. SCI. 724 (2005) (reviewing existing psychological studies that link mood to weather, and providing new experimental evidence that pleasant weather in the form of higher temperature or barometric pressure is related to higher mood, better memory, and broadened cognitive style during spring as time spent outside increased).

34. Uri Simonsohn, *Clouds Make Nerds Look Good: Field Evidence of the Impact of Incidental Factors on Decision Making*, 20 J. BEHAV. DECISION MAKING 143 (2006) (analyzing a data set of actual college admission decisions for 682 college applications and finding that applicants' academic attributes are more heavily weighted on cloudier days, and their non-academic attributes are more heavily weighted on sunnier days).

35. *See* ROBERT E. LANE, THE LOSS OF HAPPINESS IN MARKET DEMOCRACIES 59–76 (2000).

balances are significantly more likely to report higher levels of psychological distress.[36] Another study finds that credit card behavior is associated with scores on the Frontal Lobe Personality Scale, which is a measure of personality and behavioral traits associated with frontal cortex dysfunction.[37] Finally, psychological research finds that while materialistic financial attitudes can have negative affective consequences,[38] non-materialistic financial attitudes positively correlate with financial knowledge and subjective well-being.[39] Such emotions as stress also affect and are affected by our social relationships.[40] In addition, there is evidence that negative emotions hurt our longevity, mental health, mortality, and physical health,[41] while positive emotions improve them.[42]

Affective impacts of regulations include not only changes in various types of affect in their own right, but also effects of affect on economic and financial vari-

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36. *See* Sarah Brown et al., *Debt and Distress: Evaluating the Psychological Cost of Credit*, 26 J. ECON. PSYCHOL. 642 (2005).

37. Marcello Spinella et al., *Predicting Credit Card Behavior: A Study in Neuroeconomics*, 100 PERPETUAL & MOTOR SKILLS 777 (2005).

38. *See* Tim Kasser & Richard M. Ryan, *A Dark Side of the American Dream: Correlates of Financial Success as A Central Life Aspiration*, 65 J. PERSONALITY & SOC. PSYCHOL. 410 (1993); Tim Kasser & Richard M. Ryan, *Further Examining the American Dream: Differential Correlates of Intrinsic and Extrinsic Goals*, 22 PERSONALITY & SOC. PSYCHOL. BULL. 280 (1996); Carol Nickerson et al., *Zeroing in on the Dark Side of the American Dream: A Closer Look at the Negative Consequences of the Goal for Financial Success*, 14 PSYCHOL. SCI. 531 (2003). *See generally* TIM KASSER, THE HIGH PRICE OF MATERIALISM (2002).

39. Stephanie M. Bryant et al., Financial Attitudes: Implications for Personal Financial Planning Services (PFPSs) and Financial Literacy (Apr. 10, 2006) (unpublished manuscript, *available at* http://ssrn.com/abstract=896101).

40. *See* EMOTION, SOCIAL RELATIONSHIPS, AND HEALTH 58 (Carol D. Ryff & Burton H. Singer eds., 2001).

41. *See* Pim Cuijpers & Filip Smit, *Excess Mortality in Depression: A Meta-Analysis of Community Studies*, 72 J. AFFECTIVE DISORDERS 227 (2002) (examining twenty-five studies with 106,628 adult subjects, of whom 6,416 were depressed with follow-up periods of two to sixteen years and concluding that there is an increased risk of mortality for not only major clinical depression, but also in subclinical forms of depression); Dorothy D. Dunlop et al., *Incidence of Disability Among Preretirement Adults: The Impact of Depression*, 95 AM. J. PUB. HEALTH 2003 (2005) (finding that odds of activities of daily living disability were 4.3 times greater for depressed adults than their non-depressed peers); Sherita Hill Golden et al., *Depressive Symptoms and the Risk of Type 2 Diabetes: The Atherosclerosis Risk in Communities Study*, 27 DIABETES CARE 429 (2004) (finding that depressive symptoms predicted incident type 2 diabetes in a biracial cohort study of 11,615 initially non-diabetic adults aged forty-eight to sixty-seven years, who were subsequently followed for six years); Harry Hemingway & Michael Marmot, *Evidence Based Cardiology; Psychosocial Factors in the Aetiology and Prognosis of Coronary Heart Disease: Systematic Review of Prospective Cohort Studies*, 318 BRIT. MED. J. 1460 (1999) (reviewing epidemiological literature and finding that anxiety and depression are associated with increased risk of coronary disease). *See generally* MICHAEL G. MARMOT, THE STATUS SYNDROME: HOW SOCIAL STANDING AFFECTS OUR HEALTH AND LONGEVITY (2004).

42. *See* Sheldon Cohen & Sarah D. Pressman, *Positive Affect and Health*, 15 CURRENT DIRECTIONS PSYCHOL. SCI. 122 (2006) (highlighting consistent patterns of research associating physical health with trait positive affect); Sarah D. Pressman & Sheldon Cohen, *Does Positive Affect Influence Health?*, 131 PSYCHOL. BULL. 925 (2005) (providing a comprehensive review of consistent patterns in existing literature associating physical health to positive affect); Andrew Steptoe et al., *Positive Affect and Health-Related Neuroendocrine, Cardiovascular, and Inflammatory Processes*, 102 PROC. NAT'L ACAD. SCI. 6508 (2005) (showing that positive affect in middle-aged men and women is associated with reduced neuroendocrine, inflammatory, and cardiovascular activity); Nicholas Bakalar, *Reactions: Go On, Laugh Your Heart Out*, N.Y. TIMES, Mar. 8, 2005, at F6 (reporting on a study Michael Miller and others presented at the American College of Cardiology demonstrating that laughter is linked to the healthy functioning of blood vessels).

ables. For example, rules prohibiting insider trading, backdating options issued to executives, or spring loading, the practice of companies granting executives stock options just before announcing good news,[43] may have not only affective impacts, such as increased confidence in stock markets on the part of investors and the non-investing public and greater trust in corporate America, but also monetary costs and benefits, including possibly increased stock price informational efficiency. Thus, there are two aspects of affective impacts. First, there are changes in affect, which are internal experiences intrinsic to people, in contrast with financial income and monetary wealth, which are variables that are or can easily become publicly or externally observable and verifiable to others. Investors are motivated by not only financial wealth considerations, but also such expressive concerns as equality, equity, fairness, justice, patriotism, status, and social responsibility.[44]

Second, changes in affect have impacts upon both observable financial behavior,[45] and measurable financial outcomes.[46] For example, experimental research documented how disgust and sadness from unrelated contexts alter people's buying and selling behavior.[47] Thus, changes in positive and negative forms of affect have both direct consequences in terms of people's subjective well-being and indirect consequences for their financial behavior and our economy.

Financial economists and the popular press have proposed numerous measures of investor confidence, mood, or sentiment, some based upon survey data, and others based upon financial market statistics, such as Barron's Confidence Index,[48] the Chicago Board Options Exchange Volatility Index or Investor Fear Gauge,[49] the Equity Market Sentiment Index,[50] Issuance Percentage,[51] Net Cash Flow into Mu-

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43. Kara Scannell et al., *Can Companies Issue Options, Then Good News?*, Wall St. J., July 8, 2006, at A1 (reporting on controversy over spring loading).

44. Meir Statman, *What Do Investors Want?*, J. Portfolio Mgmt., 2004, at 153, 154–59.

45. *See, e.g.*, Michael J. Mauboussin, More Than You Know: Finding Financial Wisdom in Unconventional Places 87–88, 246–48 (2008); Donald G. MacGregor, *Imagery and Financial Judgment*, 3 J. Psychol. & Fin. Mkts. 15 (2002).

46. *See, e.g.*, Baba Shiv et al., *Investment Behavior and the Negative Side of Emotion*, 16 Psychol. Sci. 435 (2005) (providing the first study finding that people who have brain lesions in regions associated with emotional processing made riskier investment decisions and earned higher profits than normal subjects).

47. Jennifer S. Lerner et al., *Heart Strings and Purse Strings: Carryover Effects of Emotions on Economic Decisions*, 15 Psychol. Sci. 337 (2004).

48. *See generally* Malek Lashgari, *The Role of TED Spread and Confidence Index in Explaining the Behavior of Stock Prices*, 18 Am. Bus. Rev. 9 (2000).

49. George J. Jiang & Yisong S. Tian, *Gauging the "Investor Fear Gauge": Implementation Problems in the CBOE's New Volatility Index and a Simple Solution*, J. Derivatives (forthcoming 2008); Robert E. Whalley, *The Investor Fear Gauge*, 26 J. Portfolio Mgmt. 12 (2000); Matthew Moran, *Taking a Ride on the Volatile Side*, Index Universe, Sept. 30, 2004, http://www.indexuniverse.com/index.php?option=com_content&view=article&Itemid=34&issue=19&id=1806; *see also* Chicago Board Options Exchange-Micro Site, http://www.cboe.com/micro/vix/faq.aspx (last visited Jan. 28, 2008).

50. Arindam Bandopadhyaya & Anne Leah Jones, *Measuring Investor Sentiment in Equity Markets*, 7 J. Asset Mgmt. 208 (2006).

51. *See generally* Malcolm Baker & Jeffrey Wurgler, *Investor Sentiment and the Cross-Section of Stock Returns*, 61 J. Fin. 1645 (2006).

tual Funds,[52] the Put-Call Ratio,[53] and the Risk Appetite Index.[54] A recent empirical study found that a simple measure of media pessimism constructed from the *Wall Street Journal*'s daily "Abreast of the Market" column predicts low stock market prices.[55] Analysis of investor sentiment must differentiate among different categories of investors, however, because investor sentiment differs across investors.[56]

Although how to accurately and most usefully measure the mood and sentiment of consumers and investors remain open questions,[57] there are several measures of consumer and investor confidence and optimism including the ABC News/Money Magazine Consumer Comfort Index;[58] UBS/Gallup Index of Investor Optimism;[59] the Conference Board's Consumer Confidence Index;[60] and the University of Michigan, Institute for Social Research, Survey Research Center Index of Investor Sentiment, Investor Current Conditions Index, Index of Investor Expectations, Index of Consumer Sentiment, Index of Consumer Confidence, and Index of Consumer Expectations.[61] A number of studies investigate the relationship between various measures of consumer confidence or investor sentiment and real economic variables or stock market performance.[62] Thus, although affective variables might seem to be more difficult to measure and quantify than traditional financial economic variables, it already has been done in various ways, making analysis of affective impacts quite feasible.

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52. *See generally* Maury R. Randall et al., *Mutual Fund Cash Flows and Stock Market Performance*, 12 J. INVESTING 78 (2003).

53. *See generally id.*

54. *See generally* Manmohan S. Kumar & Avinash Persaud, *Pure Contagion and Investors' Shifting Risk Appetite: Analytical Issues and Empirical Evidence*, 5 INT'L FIN. 401 (2002).

55. *See generally* Paul C. Tetlock, *Giving Content to Investor Sentiment: The Role of the Media in the Stock Market*, 62 J. FIN. 1139 (2007).

56. *See* Kenneth L. Fisher & Meir Statman, *Investor Sentiment and Stock Returns*, FIN. ANALYSTS J., Mar./Apr. 2000, at 16.

57. *See generally* Jeff Dominitz & Charles F. Manski, *How Should We Measure Consumer Confidence?*, J. ECON. PERSP., Spring 2004, at 51.

58. ABC Consumer Comfort Index—United States, http://www.fxwords.com/a/abc-consumer-comfort-index-united-states.html (last visited Feb. 10, 2008).

59. *See* Dennis Jacobe & David W. Moore, *Cutting Through the Noise: The UBS Index of Investor Optimism*, PUB. PERSP., Mar./Apr. 2003, at 35; *see also* UBS Index of Investor Optimism, http://www.ubs.com/1/e/about/research/indexofinvestoroptimism.html (last visited Feb. 3, 2008).

60. The Conference Board, Consumer Confidence Index, http://www.conference-board.org/ (last visited Feb. 10, 2008).

61. University of Michigan Surveys of Consumers, http://www.sca.isr.umich.edu (last visited Feb. 10, 2008).

62. Gregory W. Brown & Michael T. Cliff, *Investor Sentiment and the Near-Term Stock Market*, 11 J. EMPIRICAL FIN. 1 (2004); Kenneth L. Fisher & Meir Statman, *Blowing Bubbles*, 3 J. PSYCHOL. & FIN. MKTS. 53 (2002); Kenneth L. Fisher & Meir Statman, *Consumer Confidence and Stock Returns*, J. PORTFOLIO MGMT., Fall 2003, at 115; Kenneth L. Fisher & Meir Statman, *Market Timing in Regressions and Reality*, 29 J. FIN. RES. 293 (2006); W. Jos Jansen & Niek J. Nahuis, *The Stock Market and Consumer Confidence: European Evidence*, 79 ECON. LETTERS 89 (2003); Alok Kumar & Charles M.C. Lee, *Retail Investor Sentiment and Return Comovements*, 61 J. FIN. 2451 (2006); Sydney C. Ludvigson, *Consumer Confidence and Consumer Spending*, J. ECON. PERSP., Spring 2004, at 29; Lily Qiu & Ivo Welch, Investor Sentiment Measures (July 28, 2006) (unpublished manuscript, on file with author).

Analysis of affective impacts must also acknowledge that it can be difficult classifying particular affects as benefits or costs, and hard to determine how to weigh affective impacts against each other and other considerations. So, for example, are anxiety and fear costs that should weigh in favor of government secrecy? Is optimism truly beneficial if such optimism could lead easily to irrational exuberance? Should financial regulators design policy so that people have feelings of autonomy, self-determination, and influence without actually giving them any actual autonomy, self-determination or influence? Should financial regulators convince the apocryphal widows and orphans that securities investing is a level playing field when that is not so? Should financial regulators mandate that investing be left only to experts that no longer exhibit as much affective response to stock market news as neophytes?

B. Happiness

Of all the various types of affect, happiness enjoys a privileged status in that most people claim to want happiness above all else in their lives, and most parents claim to want happiness for their children more than anything else. People also wish for happiness upon their friends and loved ones. Some people also experience joy or schadenfreude from and wish for unhappiness upon those whom they harbor ill-will or bad feelings. So, happiness occupies a unique position of being not only a type of affect, but also the prototypical concept of at least positive affect. Indeed, the noted Supreme Court Justice Oliver Wendell Holmes, Jr. stated near the culmination of an influential and seminal essay that, "we all want happiness."[63]

The United States Declaration of Independence held it self-evident that among our inalienable rights is "the pursuit of happiness."[64] But, what is happiness?[65] Can people achieve happiness and maintain it?[66] Can law and public policy promote happiness?[67] Is happiness correlated with health?[68] Is happiness related to preferences that people seem to manifest or appear to reveal in their observed choices?[69]

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63. Oliver W. Holmes, Jr., Justice, Supreme Judicial Court of Mass., The Path of the Law, Remarks at the Dedication of the new hall of the Boston University School of Law (Jan. 8, 1897), *in* 10 Harv. L. Rev. 457, 459 (1897).

64. The Declaration of Independence para. 2 (U.S. 1776).

65. Richard A. Easterlin, *Explaining Happiness*, 100 Proc. Nat'l Acad. Sci. 11, 176 (2003).

66. Sonja Lyubomirsky et al., *Pursuing Happiness: The Architecture of Sustainable Change*, 9 Rev. Gen. Psychol. 111 (2005).

67. *See* Peter H. Huang & Jeremy A. Blumenthal, *Positive Law and Policy, in* Encyclopedia of Positive Psychology (Shane J. Lopez ed., forthcoming 2008); Peter H. Huang & Jeremy A. Blumenthal, *Positive Institutions, Law, and Policy, in* Handbook of Positive Psychology (Shane J. Lopez ed., 2d ed. forthcoming 2008); Mirko Bagaric & James McConvill, *Goodbye Justice, Hello Happiness: Welcoming Positive Psychology to the Law*, 10 Deakin L. Rev. 1 (2005); Peter H. Huang, *Authentic Happiness, Self-Knowledge, and Legal Policy*, 9 Minn. J. L. Sci. & Tech. (forthcoming 2008).

68. *See generally* Steptoe et al., *supra* note 42.

69. P.A. Samuelson, *A Note on the Pure Theory of Consumer's Behavior*, 5 Economica 61 (1938).

Many individuals, philosophies, and societies have attempted to answer these questions over the history of humanity.[70]

Different cultural traditions manifest different attitudes towards these timeless questions.[71] Even within a country, people can differ in their conceptions of happiness across demographic classifications of age, ethnicity, and gender. People's views about happiness also can vary depending on their educational background, income, job, marital status, and socio-economic status. Only recently has empirical research begun to analyze how and which exogenous and endogenous variables affect happiness.[72] Also recently, interdisciplinary empirical studies have linked certain types of happiness to such biological and physiological correlates as cardiovascular measures, immune function, longevity, neural circuitry,[73] neuroendocrine markers, and sleep efficiency. This research lays foundations for an intriguing possibility, namely that of a science of happiness;[74] and its policy applications.[75] Thus far, however, there have been limited applications of insights from a science of happiness to corporate law,[76] lawyers' quality of life,[77] and tax law.[78]

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70. DANIEL NETTLE, HAPPINESS: THE SCIENCE BEHIND YOUR SMILE, 45–48 (2005) (discussing alternative historical views and hypotheses about happiness).

71. *See* CULTURE AND SUBJECTIVE WELL-BEING (Ed Diener & Eunkook M. Suh eds., 2000).

72. *See, e.g.*, HAIDT, *supra* note 19.

73. *See* Heather L. Urry et al., *Making a Life Worth Living: Neural Correlates of Well-Being*, 15 PSYCHOL. SCI. 367 (2004).

74. *See generally* THE SCIENCE OF SUBJECTIVE WELL-BEING (Michael Eid & Randy J. Larsen eds., 2008); THE SCIENCE OF WELL-BEING (Felicia A. Huppert et al. eds., 2005); WELL-BEING: THE FOUNDATIONS OF HEDONIC PSYCHOLOGY (Daniel Kahneman et al. eds., 1999).

75. *See* BRUNO S. FREY, HAPPINESS: A REVOLUTION IN ECONOMICS (2008) (developing policy implications of happiness research); ANTHONY JOHN PATRICK KENNY & CHARLES KENNY, LIFE, LIBERTY AND THE PURSUIT OF UTILITY: HAPPINESS IN PHILOSOPHICAL AND ECONOMIC THOUGHT 189–207 (2006) (exploring policies for happiness); RICHARD LAYARD, HAPPINESS: LESSONS FROM A NEW SCIENCE (2005) (arguing for specific policy implications of happiness research for public economics); Richard Layard, *Happiness and Public Policy: A Challenge to the Profession*, 116 ECON. J. C24 (2006) (same).

76. *See* JAMES MCCONVILL, SHAREHOLDER PARTICIPATION AND THE CORPORATION: A FRESH INTER-DISCIPLINARY APPROACH IN HAPPINESS (2006); JAMES MCCONVILL, THE FALSE PROMISE OF PAY FOR PERFORMANCE: EMBRACING A POSITIVE MODEL OF THE COMPANY EXECUTIVE (2005); James A. McConvill, *Positive Corporate Governance*, 6 J. BUS. & SEC. L. 51 (2006); James A. McConvill, *The Separation of Ownership and Control Under A Happiness-Based Theory of the Corporation*, 26 COMP. LAW. 35 (2005); James McConvill, *Executive Compensation and Corporate Governance: Rising Above the "Pay-for-Performance" Principle*, 43 AM. BUS. L.J. 413 (2006); James McConvill, *Piercing the 'Decision-Making Sphere': Happiness as the Key to 'Real' Shareholder Participation*, 16 EUR. BUS. L. REV. 831 (2005); James McConvill, *Shareholder Empowerment as an End in Itself: A New Perspective on Allocation of Power in the Modern Corporation*, 33 OHIO N.U. L. REV. 1013 (2007). *But see* HARRY G. HUTCHISON & R. SEAN ALLEY, SHAREHOLDER EMPOWERMENT AS AN END IN ITSELF IN THE MIRROR OF AUTHORITY (forthcoming 2008); Harry G. Hutchison & R. Sean Alley, *Against Shareholder Participation: A Treatment for McConvill's Psychonomicosis*, 2 BROOK. J. CORP. FIN. & COM. L. 41 (2007) (critiquing McConvill's argument); Posting of Gordon Smith to Conglomerate Blog, http://www.theconglomerate.org/2006/03/the_happiness_o.html#c15744737 (Mar. 31, 2006, 21:20 EST) (raising three other important questions about McConvill's argument); ProfessorBainbridge.com Blog, http://www.professorbainbridge.com/2006/03/shareholder_par.html (Mar. 31, 2006, 22:13 EST) (arguing that employees have a stronger case for participation in corporate governance and that many employees prefer hierarchy).

77. Peter H. Huang & Rick Swedloff, *Lawyer Happiness and Unhappiness in Law Firm Settings*, 58 SYRACUSE L. REV. 335 (2008); Martin E.P. Seligman et al., *Why Lawyers are Unhappy*, 23 CARDOZO L. REV. 33 (2001); Symposium, *Perspectives on Lawyer Happiness*, 58 SYRACUSE L. REV. (2008).

Academic research about happiness is a recent growth industry among economists,[79] historians,[80] philosophers,[81] and psychologists.[82] A veritable plethora of trade books provide summaries of this already sizeable, but still rapidly growing literature.[83] Several national magazines and newspapers featured happiness research as their cover story.[84] A national morning news program included a segment about what makes people happy.[85] Many of these and other instances of popular media coverage about happiness involved prominent depictions of a familiar yellow smiley-face icon that Massachusetts graphic artist Harvey Bell created in 1964 for a life insurance company that paid him $45 for it (but, neither he nor the insurance company copyrighted it, thus explaining in part its popularity since then).[86]

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78. *See generally* Mirko Bagaric & James A. McConvill, *Stop Taxing Happiness: A New Perspective on Progressive Taxation*, 2 Pitt. Tax Rev. 1 (2005); Thomas D. Griffith, *Progressive Taxation and Happiness*, 45 B.C. L. Rev. 1363 (2004); Marjorie E. Kornhauser, *Educating Ourselves Towards a Progressive (and Happier) Tax: A Commentary on Griffith's* Progressive Taxation and Happiness, 45 B.C. L. Rev. 1399 (2004); Diane M. Ring, *Why Happiness?: A Commentary on Griffith's* Progressive Taxation and Happiness, 45 B.C. L. Rev. 1413 (2004).

79. *See* John Malcolm Dowling & Yap Chin-Fang, Modern Developments in Behavioral Economics: Social Science Perspectives on Choice and Decision Making 181–250 (2007); Robert H. Frank, Falling Behind: How Rising Inequality Harms the Middle Class (2007); Robert H. Frank, Luxury Fever: Why Money Fails to Satisfy in an Era of Excess (1999); Bruno S. Frey & Alois Stutzer, Happiness & Economics (2002); Bruno S. Frey & Alois Stutzer, *What Can Economists Learn from Happiness Research?*, 40 J. Econ. Literature 402 (2002); *see also* Richard A. Easterlin, Happiness in Economics (2002); Economics & Happiness: Framing the Analysis (Luigino Bruni & Pier Luigi Porta eds., 2005); Handbook on the Economics of Happiness (Luigino Bruni & Pier Luigi Porta eds., 2007).

80. *See, e.g.*, Jennifer Michael Hecht, The Happiness Myth: Why What We Think Is Right Is Wrong: A History of What Really Makes Us Happy (2007); Darrin M. McMahon, Happiness: A History (2006).

81. *See generally* Robert Almeder, Human Happiness and Morality: A Brief Introduction to Ethics (2000); Richard Kraut, What Is Good and Why: The Ethics of Well-Being (2007); L.W. Sumner, Welfare, Happiness, and Ethics (1996).

82. *See, e.g.*, John F. Schumaker, In Search of Happiness: Understanding an Endangered State of Mind 15 (2007).

83. Carol Memmott, *Grump Journeys to Find World's Happiest Places*, USA Today, Jan. 7, 2008, at E1 (describing Eric Weiner, The Geography of Bliss: One Grump's Search for the Happiest Places in the World (2007) and other recently published trade books about happiness). *See generally* Dan Baker et al., What Happy Companies Know: How the New Science of Happiness Can Change Your Company for the Better (2006); Tal Ben-Shahar, The Question of Happiness: On Finding Meaning, Pleasure, and the Ultimate Currency (2002); Gregory Berns, Satisfaction: The Science of Finding True Fulfillment (2005); Daniel Gilbert, Stumbling on Happiness (2005); Haidt, *supra* note 19; Felicia A. Huppert et al., The Science of Well-Being (2005); Daniel Nettle, Happiness: The Science Behind Your Smile (2005); Matthieu Ricard, Happiness: A Guide to Developing Life's Most Important Skill (Jesse Browner trans., Little, Brown & Co. 2006) (2003); Michael Shermer, The Mind of the Market: Compassionate Apes, Competitive Humans, and Other Tales from Evolutionary Economics 139–66 (2008); Marci Shimoff with Carol Kline, Happy for No Reason: 7 Steps to Being Happy From the Inside Out (2008); Bernard M.S. van Praag & Ada Ferrer-i-Carbonell, Happiness Quantified: A Satisfaction Calculus Approach (2d rev. ed. 2007).

84. Geoffrey Cowley, *The Science of Happiness*, Newsweek, Sept. 16, 2002, http://www.newsweek.com/id/65673; Dennis McCafferty, *The Happiest Guy*, USAWeekend.com, Mar. 9, 2003, http://www.usaweekend.com/03_issues/030309/030309happiestman.html; *see also* Holly J. Morris, *Happiness Explained*, U.S. News & World Rep., Aug. 26, 2001; Claudia Wallis, *The New Science of Happiness*, Time, Jan. 17, 2005.

85. *Today* (NBC television broadcast Sept. 1, 2006).

86. Christopher Peterson, A Primer in Positive Psychology 7 (2006).

Several economists and psychologists conducting research about happiness recently proposed that countries adopt national well-being accounts,[87] although other economists have criticized such proposals.[88] Psychologist and 2002 Nobel Laureate in economics Daniel Kahneman and economist Robert Sugden recently proposed that environmental regulators evaluate policies based upon measures of experienced utility.[89] Daniel Kahneman and economist Alan Krueger advocated supplementing traditional economic objective measures of well-being, such as market-based variables,[90] with various psychological measures of happiness and subjective well-being.[91] As Robert Kennedy eloquently once said:

> *[G]ross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our teaching . . . it measures everything in short, except that which makes life worthwhile.*[92]

As economics professor Nancy Folbre stated, "the purpose of gross domestic product, after all, is to make lives better now and for generations to come."[93]

Former Chairman of the Federal Reserve, Alan Greenspan recently stated in an interview on Comedy Central's *The Daily Show* that measuring fear and euphoria can revolutionalize economic forecasting.[94] On the other hand, there are concerns about the reliability of subjective well-being measures,[95] roles for happiness in public policies,[96] implications for policy,[97] what exactly self-reports of happiness mea-

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87. *See* Ed Diener, *Subjective Well-Being: The Science of Happiness and a Proposal for a National Index*, 55 AM. PSYCHOL. 34 (2000); Daniel Kahneman & Alan B. Krueger, *Developments in the Measurement of Subjective Well-Being*, J. ECON. PERSP., Winter 2006, at 3; Daniel Kahneman et al., *Toward National Well-Being Accounts*, 94 AM. ECON. REV. 429 (2003).

88. *See, e.g.*, D.P. Doessel, *The Rise of Studying Happiness, But What of the Shadow of Unhappiness from Mental Illness?*, 25 PROMETHEUS 435 (2007); Bruno S. Frey & Alois Stutzer, *Maximizing Happiness?*, 1 GERMAN ECON. REV. 145 (2000).

89. Daniel Kahneman & Robert Sugden, *Experienced Utility as a Standard of Policy Evaluation*, 32 ENVTL. & RESOURCE ECON. 161 (2005).

90. Happiness & The Economy, http://www.youtube.com/watch?v=ZgvheHMaPtI (last visited Feb. 10, 2008).

91. Well-Being Defined, http://www.youtube.com/watch?v=oGCKHX4Lr9od (last visited Feb. 10, 2008).

92. Senator Robert F. Kennedy, Address at the University of Kansas (Mar. 18, 1968), *available at* http://www.jfklibrary.ord/Historical+Resources/Archives/Reference‡esk/Speeches/RFK/RFKSpeech68Mar18UKansas.htm).

93. NANCY FOLBRE, VALUING CHILDREN: RETHINKING THE ECONOMICS OF THE FAMILY 1 (2008).

94. The New Economic Indicators, http://www.youtube.com/watch?v=OtI-FDlrWf8 (last visited Feb. 10, 2008).

95. Alan B. Krueger & David A. Schakde, *The Reliability of Subjective Well-Being Measures*, J. PUB. ECON. (forthcoming).

96. George Loewenstein & Peter Ubel, *Hedonic Adaptation and the Role of Decision and Experience Utility in Public Policy*, J. PUB. ECON. (forthcoming).

sure,[98] and use of happiness research to justify government expansion and tax increases.[99]

C. *Trust*

It is quite intuitive to view a flight from U.S. stock markets as due to investors having lost confidence and trust in U.S. stock markets after the string of infamous corporate scandals. Investor confidence and trust in corporate securities markets are fragile public goods.[100] A trust-based explanation of why investors deserted U.S. stock markets would imply that restoring, maintaining, and promoting investor confidence about and trust in our stock markets is crucial to U.S. economic prosperity. But, trust does not play any role in the standard finance literature about investors' optimal portfolio choices and rates of stock market participation. Only very recently, a financial model demonstrated analytically how people's fears of being cheated reduce their participation in stock markets.[101] Calibrating this model showed that mistrust in stock markets can explain why many wealthy people in the United States do not buy stocks, in addition to account for cross-country differences in stock market participation rates.[102]

Also recently, a study conducting five experiments "found that incidental emotions significantly influence trust in unrelated settings. Happiness and gratitude—emotions with positive valence—increase trust, and anger—an emotion with negative valence—decreases trust."[103] A pair of legal scholars also recently proposed a cognitive theory about optimal trust and explored its policy implications for two settings: corporate governance and doctor-patient relationships.[104] Two psychologists conducted experiments on the World Wide Web and found that CBA can increase people's trust in decisions that government agencies or companies make.[105] Empirical research based upon data from the European Union revealed that institutional trust in law has positive impacts upon people's self-reported subjective well-being.[106] Finally, financial economist Michael C. Jensen recently advocated that fi-

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97. Wil Wilkinson, *In Pursuit of Happiness Research: Is It Reliable? What Does It Imply for Policy?*, 590 POL'Y ANALYSIS 1 (2007).

98. Peter A. Diamond, *Behavioral Economics*, J. PUB. ECON. (forthcoming).

99. Michael E. DeBow & Dwight R. Lee, *Happiness and Public Policy: A Partial Dissent (or, Why a Department of Homeland Happiness Would Be a Bad Idea)*, 22 J.L. & POL. 283 (2006).

100. *See generally* TAMAR FRANKEL, TRUST AND HONESTY: AMERICA'S BUSINESS CULTURE AT A CROSSROAD (2006); TAMAR FRANKEL & MARK FAGEN, INTRODUCTION TO TRUST AND HONESTY IN THE REAL WORLD: A JOINT COURSE FOR LAWYERS, BUSINESS PEOPLE AND REGULATORS (2007).

101. Luigi Guiso et al., *Trusting the Stock Market*, 7 J. FIN. (forthcoming 2008).

102. *Id.*

103. Jennifer R. Dunn & Maurice E. Schweitzer, *Feeling and Believing: The Influence of Emotion on Trust*, 88 J. PERSONALITY & SOC. PSYCHOL. 736, 736 (2005).

104. Claire A. Hill & Erin Ann O'Hara, *A Cognitive Theory of Trust*, 84 WASH. U. L. REV. 1717 (2006).

105. Jonathan Baron & Andrea D. Gurmankin, Cost-Benefit Analysis Can Increase Trust in Decision Makers (Nov. 23, 2003) (unpublished manuscript, *available at* http://www.sas.upenn.edu/~baron/cba.html).

106. John Hudson, *Institutional Trust and Subjective Well-Being Across the EU*, 59 KYKLOS 43 (2006).

nancial theory and practice develop a language for how integrity affects corporate, market, personal, and policy issues.[107]

There is voluminous behavioral finance literature about investor sentiment.[108] Corporate and securities law scholar Lynn Stout suggests that investor confidence and trust motivate investing.[109] A number of legal scholars have addressed how to restore trust in American business.[110] A recent laboratory study found that trust harmed by untrustworthy actions can be restored effectively, but that trust harmed by deception and the same untrustworthy behavior never fully recovers even after promises, apologies, and consistently trustworthy actions.[111] Future research should analyze how such emotions as anxiety and frustration influence trust and its recovery.[112] It is crucial to emphasize that the goal of any financial regulator should not be to just increase trust per se unboundedly, but rather to foster an optimal equilibrium degree of trust. This amount of trust should be well-calibrated with actual trustworthiness on the part of securities and financial professionals.

III. OTHER RECENT SECURITIES LAW CONTROVERSIES

Several other controversial securities regulations also raise these same fundamental questions about how to appraise securities regulations and if CBA should be part of appraising securities regulations. A number of contentious recent SEC rules involved regulation of mutual funds. A mutual fund pools money from many investors to purchase diverse assets, such as bonds, money market securities, and stocks.[113] Harry M. Markowitz provided a theoretical rationale for mutual funds in 1952 when he pioneered modern portfolio theory,[114] for which he shared the 1990 Alfred Nobel Prize in Economic Science with Merton H. Miller and William F. Sharpe. Modern portfolio theory formalized a long-standing intuition that diversification or "not putting all your eggs in one basket" is a reasonable investment

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107. Michael C. Jensen, *Putting Integrity into Finance Theory and Practice: A Positive Approach* 2 (Harvard Negotiation, Orgs. & Mkts. Research Paper No. 06-06, 2007), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=876312.

108. *See* HERSH SHEFRIN, A BEHAVIORAL APPROACH TO ASSET PRICING 201–19 (2005); *see also* Sentiment, http://sentiment.behaviouralfinance.net/ (last visited Feb. 10, 2008).

109. Lynn A. Stout, *The Investor Confidence Game*, 68 BROOK. L. REV. 407, 415, 420 (2002).

110. *See generally* RESTORING TRUST IN AMERICAN BUSINESS (Jay W. Lorsch et al. eds., 2005); RESTORING TRUST IN AMERICA'S BUSINESS INSTITUTIONS: CONFERENCE PROCEEDINGS, GEORGETOWN UNIVERSITY LAW CENTER, NOV. 6–7, 2003 (Margaret M. Blair & William W. Bratton eds., 2005); ROBERT C. SOLOMON & FERNANDO FLORES, BUILDING TRUST IN BUSINESS, POLITICS, RELATIONSHIPS, AND LIFE (2001).

111. Maurice E. Schweitzer et al., *Promises and Lies: Restoring Violated Trust*, 101 ORG. BEHAV. & HUM. DECISION PROCESSES 1, 14–15 (2006).

112. Dunn & Schweitzer, *supra* note 103, at 746.

113. *See, e.g.*, Mutual Fund Investor's Center: Why Mutual Funds, http://www.mfea.com/GettingStarted/LearningTopics/Basics/TheBasics.asp (last visited Feb. 10, 2008); *see also* E. PHILIP DAVIS & BENN STEIL, INSTITUTIONAL INVESTORS 16–17 (2001) (defining mutual funds).

114. *See generally* HARRY M. MARKOWITZ, PORTFOLIO SELECTION: EFFICIENT DIVERSIFICATION OF INVESTMENTS (Cowley Found. for Res. in Econ. at Yale Univ. 1991) (1959); Harry Markowitz, *Portfolio Selection*, 7 J. FIN. 77 (1952).

strategy to reduce financial risks.[115] Investors today face an overwhelming plethora of retail mutual funds to help them diversify their financial investments.[116] Over half of U.S. households own shares in mutual funds.[117] Americans participate in stock markets primarily via mutual funds and pension plans.[118] The U.S. mutual fund industry grew from just 73 funds in 1945 to 8,000 funds by 2002.[119] Mutual fund shares of 401(k) assets were merely 9% in 1990, but 44% by 2001.[120] Similarly, 67% of retirement assets were in equity mutual funds by 2004, compared to 9% in 1990.[121] U.S. mutual funds managed assets of approximately $50 billion in 1970.[122] American mutual funds now hold more than $7.5 trillion in assets and are continuing to increase significantly in size and importance.[123] Mutual funds offer individuals not only investment vehicles, but also advice, education, and (mis)information.[124] Recent mutual fund scandals led to a number of class action lawsuits, criminal prosecutions, and proposed regulations.[125]

On July 27, 2004, the SEC adopted corporate governance rules that require mutual-fund companies to, among other things, (i) have chairs of their boards who are independent of their fund's management, and (ii) increase the percentage of directors on their boards who are independent of their fund's management from a previously required 50% to 75% (except for three member boards, where two are required to be independent).[126] On June 21, 2005, the most important court in federal regulatory law, the U.S. Court of Appeals for the D.C. Circuit, unanimously remanded to the SEC for consideration of the costs of the above two require-

115. RICHARD A. BREALEY ET AL., PRINCIPLES OF CORPORATE FINANCE 181 (8th ed. 2006) (explaining Harry Markowitz's pioneering contributions to portfolio diversification); BURTON G. MALKIEL, A RANDOM WALK DOWN WALL STREET: THE TIME-TESTED STRATEGY FOR SUCCESSFUL INVESTING 179–96 (9th ed. 2007) (describing how modern portfolio theory helps investors reduce financial risks).

116. *See, e.g.*, Mutual Fund Investor's Center, *supra* note 113.

117. *Id.*; *see also* Carol Bertaut & Martha Starr-McCluer, *Household Portfolios in the United States*, *in* HOUSEHOLD PORTFOLIOS 183–98 (Luigi Guiso et al. eds., 2002) (providing data, trends, and evidence about U.S. household portfolios).

118. *See* John C. Bogle, *Individual Stockholder, R.I.P.*, WALL ST. J., Oct. 3, 2005, at A16.

119. INV. CO. INST., MUTUAL FUND FACT BOOK (43d ed. 2003).

120. *Mutual Funds and the Retirement Market*, FUNDAMENTALS (Inv. Co. Inst., Washington, D.C.), July 1998, at 1, 4.

121. *Mutual Funds and the U.S Retirement Market in 2004*, FUNDAMENTALS (Inv. Co. Inst., Washington, D.C.), Aug. 2005, at 1, 6.

122. Erik R. Sirri & Peter Tufano, *Competition and Change in the Mutual Fund Industry*, *in* FINANCIAL SERVICES: PERSPECTIVES AND CHALLENGES 181 (Samuel L. Hayes ed., 1993).

123. Press Release, U.S. Chamber of Commerce, *U.S. Chamber of Commerce v. SEC* Mutual Fund "Governance" Litigation (Apr. 8, 2005), *available at* http://www.uschamber.com/nclc/news/casealerts/ca050408.htm. *See generally* ROBERT C. POZEN, THE MUTUAL FUND BUSINESS (Sandra D. Crane ed., 2d ed. 2002).

124. Kenneth L. Fisher & Meir Statman, *Investment Advice from Mutual Fund Companies*, J. PORTFOLIO MGMT., Fall 1997, at 9.

125. Paul G. Mahoney, *Manager-Investor Conflicts in Mutual Funds*, J. ECON. PERSP., Spring 2004, at 161, 176–81.

126. Investment Company Governance, Investment Company Act Release No. 26,520, 69 Fed. Reg. 46,378 (Aug. 2, 2004) (to be codified at 17 C.F.R. pt. 270).

ments,[127] because "the Commission "fail[ed] adequately to consider the costs imposed upon funds by the two challenged conditions."[128]

In spite of this decision, and without providing for any further public notice or comment, the SEC affirmed its July 2004 rule only eight days later by a narrow 3-2 vote.[129] The U.S. Chamber of Commerce, which originally challenged the SEC rule, also challenged the SEC's affirming its rule.[130] The SEC estimated the costs of compliance per mutual fund would be "extremely small relative to the fund assets for which fund boards are responsible, and are also small relative to the expected benefits . . . ."[131] Both dissenting Commissioners, eight Senators, former SEC Commissioner Joseph A. Grundfest, and former SEC Chair Harvey Pitt all made pleas for a more deliberative approach.[132]

On April 7, 2006, the U.S. Court of Appeals for the D.C. Circuit unanimously vacated both of the requirements,[133] holding that the SEC violated the comment requirement of part 553(c) of the Administrative Procedure Act because the SEC "relied on extra-record material critical to its costs estimates without affording an opportunity for comment to the prejudice of the Chamber . . . ."[134] The court, however, suspended issuance of its mandate for 90 days, giving the SEC an opportunity to "reopen the record for comment on the costs of implementing the two conditions."[135] On June 13, 2006, the SEC issued a request for additional comments until August 21, 2006 regarding these rules.[136]

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127. Chamber of Commerce v. SEC, 412 F.3d 133, 136 (D.C. Cir. 2005).

128. *Id.* at 144.

129. Investment Company Governance, Investment Company Act Release No. 26,985, 70 Fed. Reg. 39,390, 403 (July 7, 2005) (to be codified at 17 C.F.R. pt. 270); Michael Schroeder, *SEC Adopts Mutual Fund Rule, Risks New Court Challenge*, WALL ST. J., June 30, 2005, at C1. This affirmation also was just one day before former SEC Chair William Donaldson's resignation took effect.

130. Press Release, U.S. Chamber of Commerce, Chamber Files Motion to Stay SEC Mutual Fund Rule (July 26, 2005), *available at* http://www.uschamber.com/press/releases/2005/july/05-126.htm; Press Release, U.S. Chamber of Commerce, U.S. Chamber Files Suit Against New Mutual Fund Rules; Charges SEC Overstepped Authority in Independent Boards (Sept. 2, 2004), *available at* http://www.uschamber.com/press/releases/2004/september/04-118.htm; Press Release, U.S. Chamber of Commerce, U.S. Chamber Vows to Continue Fight; SEC Mutual Fund Action to be Challenged in Court (June 29, 2005), *available at* http://www.uschamber.com/press/releases/2005/june/05-112.htm.

131. Investment Company Governance, 70 Fed. Reg. at 39,395.

132. *Id.* at 39,403–09; *see also* Letter from Senators to the SEC (June 22, 2005), *available at* http://www.sec.gov/rules/final/icgletters/senate062205.pdf; Letter from Joseph A. Grundfest, W.A. Franke Professor of Law and Bus., Stanford Law Sch., to the Chairman and Commissioners of the United States Securities and Exchange Commission (June 23, 2005), *available at* http://www.sec.gov/rules/final/icgletters/jagrundfest062305.pdf; Letter from Harvey L. Pitt, former Comm'r of the SEC, to Chairman Donaldson and Comm'rs Glassman, Goldschmid, Campos and Atkins, Chairman and Comm'rs of the SEC (June 23, 2005), *available at* http://www.sec.gov/rules/final/icgletters/hpitt062305.pdf.

133. Chamber of Commerce v. SEC, 443 F.3d 890, 909 (D.C. Cir. 2006).

134. *Id.* at 908.

135. *Id.* at 909.

136. Investment Company Governance, Investment Company Act Release No. 27,395, 71 Fed. Reg. 35,366 (June 19, 2006) (to be codified at 17 C.F.R. pt. 270).

One securities law scholar believed this mutual fund regulation likely would have unknowable costs, but few knowable benefits.[137] A recent empirical study found that strengthened corporate governance controls have no statistically significant impact on mutual fund outflows.[138] Three additional recent empirical studies found that when directors and managers of mutual funds personally own shares in those mutual funds, those mutual funds perform better.[139] These findings provide support for SEC rules that require mutual funds to disclose information regarding mutual fund share ownership by directors,[140] and similarly by managers.[141] Furthermore, most investors are likely to have no idea if directors of the board for any particular mutual fund are independent. A survey that asked investors what they would prefer is likely to find that many people would have a preference for directors with a lot of skin in the game so as to keep incentives of directors and shareholders aligned regarding fund performance.

Much of the controversy over these mutual fund governance rules involved process concerns about how genuinely and thoroughly the SEC had deliberated over these mutual fund governance rules. In particular, the SEC decided very quickly to affirm these rules upon the U.S. Court of Appeals for the D.C. Circuit's decision to remand them to the SEC for consideration of those rules' costs. As distinguished economist Albert O. Hirschman eloquently stated, "for a democracy to function well and to endure, it is essential, so it has been argued, that opinions *not* be fully formed *in advance* of the process of deliberation."[142] Not only substantive outcomes, but also procedural or process considerations motivate people's behavior, even when it comes to investment and retirement savings.[143] Recently, two economists proposed a notion of procedural utility and provided empirical evidence that participation rights lead to procedural utility in terms of a feeling of self-determination and influence; while actual participation and use of participation rights did

137. Larry E. Ribstein, *Do the Mutuals Need More Law?*, REG., Spring 2004, at 14, 15, *available at* http://www.cato.org/pubs/regulation/regv27n1/brieflynoted.pdf.

138. Stephen Choi & Marcel Kahan, *The Market Penalty for Mutual Fund Scandals* 25–27 (N.Y. Univ. Sch. of Law, Law and Economics Working Paper No. 43, 2006), *available at* http://lsr.nellco.org/nyu/lewp/papers/43/.

139. Ajay Khorana et al., *Portfolio Manager Ownership and Fund Performance*, 85 J. FIN. ECON. 179 (2007); Martijn Cremers et al., *Does Skin in the Game Matter? Director Incentives and Governance in the Mutual Fund Industry* 23 (Yale ICF, Working Paper No. 06-34, 2006), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=686167; Allison L. Evans, Portfolio Manager Ownership and Mutual Fund Performance (Jan. 2006) (unpublished manuscript, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=893802).

140. 17 C.F.R. §§ 239, 240, 270, 274 (2006).

141. Disclosure Regarding Portfolio Managers of Registered Management Investment Companies, Securities Act Release No. 8,458, Exchange Act Release No. 50,227, Investment Company Act Release No. 26,533, 69 Fed. Reg. 52,788 (Aug. 27, 2004) (to be codified at 17 C.F.R. pts. 239, 249, 270, 274).

142. Albert O. Hirschman, *Having Opinions—One of the Elements of Well-Being?*, 79 AM. ECON. REV. 75, 77 (1989).

143. Harris Sondak & Tom R. Tyler, *How Does Procedural Justice Shape the Desirability of Markets?*, 28 J. ECON. PSYCHOL. 79, 80, 88 (2007); Tom R. Tyler, *Process Utility and Help Seeking: What Do People Want from Experts?*, 27 J. ECON. PSYCHOL. 360, 362–72 (2006) (demonstrating empirically that peoples' utilities extend beyond financial and material outcomes to process, even in settings traditionally framed in economic terms).

not.[144] Thus, the SEC should analyze and acknowledge not only affective impacts related to substantive outcomes, but also such affective impacts related to procedural or process considerations as emotional difficulties that many individuals and groups of people have in facing and making certain types of tradeoffs,[145] which much of economics and many economists consider without any emotional difficulties.[146] A hypothesis is that people who do not see the world through an economics lens are likely to experience strong negative emotions to such tradeoffs, while people who see the world through an economics lens are likely to feel no emotional reactions toward such tradeoffs, because such emotions are responses to taboo tradeoffs and protected values.[147]

Another controversy arose in response to the SEC's proposal to impose a mandatory 2% redemption fee on mutual fund shareholders who redeem shares within five days of their purchase.[148] Yet another controversy arose over the SEC's proposal to amend Rule 22c-1 by adopting a hard 4 p.m. close for mutual fund orders.[149] A final controversial proposed SEC rule required members of the hedge fund industry to register as investment advisors.[150] The SEC's Director of Investor Education, Susan Ferris Wyderko, testified that the hedge fund industry invests $1.2 trillion in assets.[151] On June 24, 2006, the U.S. Court of Appeals for the D.C. Circuit unanimously held that the SEC lacked the authority to regulate hedge funds.[152] The SEC's chair responded by stating that "despite the Commission's investor protection objective[,] its rule is arbitrary and in violation of law, [the court's finding] requires that going forward we reevaluate the agency's approach to

144. Bruno S. Frey & Alois Stutzer, *Beyond Outcomes: Measuring Procedural Utility*, 57 OXFORD ECON. PAPERS 90 (2005); *see also* Matthias Benz & Bruno S. Frey, *Being Independent Raises Happiness at Work*, 11 SWEDISH ECON. POL'Y REV. 95 (2004); Bruno S. Frey et al., *Introducing Procedural Utility: Not Only What, But Also How Matters*, 160 J. INSTITUTIONAL & THEORETICAL ECON. 377 (2004). *See generally* Alois Stutzer & Bruno S. Frey, *Making International Organizations More Democratic*, 1 REV. L. & ECON. 305 (2005).

145. *See generally* MARY FRANCES LUCE ET AL., EMOTIONAL DECISIONS: TRADEOFF DIFFICULTY AND COPING IN CONSUMER CHOICE (2001).

146. *See generally* HAROLD WINTER, TRADE-OFFS: AN INTRODUCTION TO ECONOMIC REASONING AND SOCIAL ISSUES (2005).

147. Peter H. Huang, *Emotional Reactions to Law and Economics, Market Metaphors, and Rationality Rhetoric*, *in* THEORETICAL FOUNDATIONS OF LAW AND ECONOMICS (Mark D. White ed., forthcoming).

148. Press Release, SEC, SEC Proposes Mandatory Redemption Fees for Mutual Fund Securities (Feb. 25, 2004), *available at* http://www.sec.gov/news/press/2004-23.htm.

149. Amendments to Rules Governing Pricing of Mutual Fund Shares, 68 Fed. Reg. 70,388 (proposed Dec. 17, 2003) (to be codified at 17 C.F.R. pt. 270).

150. Registration Under the Advisers Act of Certain Hedge Fund Advisers, 69 Fed. Reg. 72,054 (Dec. 10, 2004) (to be codified at 17 C.F.R. pts. 275, 279); Deborah Solomon, *New SEC Chief Plans to Enforce Hedge-Fund Rule*, WALL ST. J., Sept. 19, 2005, at A1. *See generally* U.S. SEC, IMPLICATIONS OF THE GROWTH OF HEDGE FUNDS (2003), *available at* http://www.sec.gov/news/studies/hedgefunds0903.pdf.

151. Ianthe Jeanne Dugan, *Double Trouble Valuing the Hedge-Fund Industry*, WALL ST. J., July 8, 2006, at B3 (reporting on confusion over the size of the hedge fund industry).

152. Goldstein v. SEC, 451 F.3d 873, 884 (D.C. Cir. 2006).

hedge fund activity."[153] Legal scholars disagree over how much to regulate hedge funds.[154]

All of these above controversies over the proper boundaries of SEC regulation also implicate questions about how to evaluate securities rules and whether CBA should be part of such evaluations. Even if CBA should be part of the securities regulatory process, other considerations can trump CBA. For example, one could argue that insider trading or securities fraud should be illegal even if they lead to financial benefits, such as equilibrium securities market prices conveying insider information, exceeding their financial costs, because they lead to emotional impacts, such as some individual retail investors not participating in securities markets due to a feeling that securities markets are not a level playing field.

The SEC's CBA of requiring independent board chairs and more independent directors for mutual funds considered, among other costs, these:[155] (1) search costs to find qualified board candidates; (2) new board member salaries; (3) higher compensation for independent board chairs; and (4) additional remuneration to retain independent legal counsel and other support staff for new independent directors; and, among other benefits, these:[156] (1) enhancing quality fund governance; (2) fostering more capital formation; (3) increasing accountability by fund boards; and (4) increasing market liquidity.

Requiring independent board chairs and more independent directors for mutual funds would have these negative affective impacts: (1) a false sense of security by fund shareholders resulting in less individual vigilance; (2) additional influence costs;[157] (3) reduced board cohesiveness; and (4) transition costs of changing board cultures; and these positive affective impacts: (1) avoiding documented perverse, psychological shortcomings to simply disclosing conflicts of interest;[158] (2) lower decision-making anxiety for potential fund shareholders; (3) lower stress for ex-

153. Press Release, SEC, Statement of Chairman Cox Concerning the Decision of the U.S. Court of Appeals in *Phillip Goldstein, et al. v. Securities and Exchange Commission* (June 23, 2006), *available at* http://www.sec.gov/news/press/2006/2006-101.htm.

154. Robert C. Pozen, *Hedge Funds Today: To Regulate or Not?*, WALL ST. J., June 20, 2005, at A14 (discussing some concerns about hedge funds); David Skeel, *Behind the Hedge*, LEGAL AFFAIRS, Nov./Dec. 2005, at 28 (providing examples of bad hedge fund behavior); Dale A. Oesterle, *Regulating Hedge Funds* (Pub. Law & Legal Theory Working Paper Series No. 71, 2006), *available at* http://ssrn.com/abstract=913045.

155. Investment Company Governance, Investment Company Act Release No. 26,985, 70 Fed. Reg. 39,390, 39,391–96 (July 7, 2005).

156. *Id.* at 39,395–96.

157. Margaret Meyer et al., *Organizational Prospects, Influence Costs, and Ownership Changes*, 1 J. ECON. & MGMT. STRATEGY 9 (1992).

158. Daylian M. Cain et al., *Coming Clean but Playing Dirtier: The Shortcomings of Disclosure as a Solution to Conflicts of Interest, in* CONFLICTS OF INTEREST: CHALLENGES AND SOLUTIONS IN BUSINESS, LAW, MEDICINE, AND PUBLIC POLICY 104 (Don A. Moore et al. eds., 2005) (presenting evidence that disclosing conflicts of interest can have two perverse effects: (1) disclosers behave in more biased fashion; and (2) audiences of disclosure insufficiently discount for conflict of interest); Daylian M. Cain et al., *The Dirt on Coming Clean: Perverse Effects of Disclosing Conflicts of Interest*, 34 J. LEGAL STUD. 1 (2005) (same).

isting fund shareholders; and (4) placebo effects.[159] The SEC could analyze whether investor concern about mutual fund board independence supports increasing the percentage of independent directors on mutual fund boards from 50% to 75%. The SEC also could address whether and how much of a reduction in levels of mutual fund investors' anxiety justifies requiring mutual funds to retain independent board chairs. More generally, the SEC should take into account recent economic theoretical research about how anxiety and fear can affect people's consumption, investment, and savings decisions.[160] Economists recently have begun to analyze theoretical models of how regulators can and should take into account and utilize such affect as anxiety or fear to influence people's behavior.[161]

The first positive affective impact mentioned above requires explicitly comparing the proposed substantive regulation with the most common policy alternative in the SEC's regulatory toolkit, namely mandatory disclosure. The affirming majority of the SEC's commissioners merely and summarily asserted buzzwords and a mantra,[162] without engaging in any real analysis of how much this rule promotes investor confidence.[163] Both dissenting SEC commissioners criticized and questioned the affirming majority for such vague assertions.[164] Thus, a large part of the controversy over these proposed mutual fund governance rules was over the actual size of a particular and often cited positive affective impact, namely that of more investor confidence and greater trust in securities markets. In other words, the controversy over these mutual fund governance rules can be seen in large part as differences in beliefs over whether the SEC can and should perform more formal analysis of how proposed securities regulations affect investor confidence. The SEC should obtain

159. Amitai Aviram, *In Defense of Imperfect Compliance Programs*, 32 FLA. ST. U. L. REV. 763, 773–74 (2005).

160. *See, e.g.*, Andrew Caplin & John Leahy, *Psychological Expected Utility Theory and Anticipatory Feelings*, 116 Q.J. ECON. 55, 66–72 (2001) (providing the first theoretical model of how anticipatory emotions can alter economic behavior); Wojciech Kopczuk & Joel Slemrod, *Denial of Death and Economic Behavior*, 5 ADVANCES THEORETICAL ECON. 1, 18–20 (2005) (providing the first theoretical model of the impact of denial and fear of death upon consumption and saving decisions).

161. *See* Andrew Caplin & Jonathan Leahy, *Behavioral Policy*, *in* 1 THE PSYCHOLOGY OF ECONOMIC DECISIONS 73, 79–85 (Isabelle Brocas & Juan D. Carrillo eds., 2003) (outlining theoretical challenges that anxiety and stress pose for analyzing such educational policies as genetic testing and providing financial retirement savings information); Andrew Caplin, *Fear as a Policy Instrument*, *in* TIME AND DECISION: ECONOMIC AND PSYCHOLOGICAL PERSPECTIVES ON INTERTEMPORAL CHOICE 441–58 (George Loewenstein et al. eds., 2003) (providing the first theoretical model of how to utilize fear-inducing messages to motivate citizens to undertake preventive care); Andrew Caplin & Kfir Eliaz, *AIDS Policy and Psychology: A Mechanism-Design Approach*, 34 RAND J. ECON. 631, 631–32 (2003) (providing the first theoretical model of AIDS policy when people are fearful of AIDS testing); Andrew Caplin & John Leahy, *The Supply of Information by a Concerned Expert*, 114 ECON. J. 487 (2004) (providing the first theoretical model of the optimal disclosure procedure for doctors facing potentially anxious patients); Botond Kőszegi, *Health Anxiety and Patient Behavior*, 22 J. HEALTH ECON. 1073 (2003) (providing the first theoretical model of patients' anxiety over their health and consequences of such fears and stress for patient decision-making about information acquisition and treatment).

162. Investment Company Governance, 70 Fed. Reg. 39,390, 396, 400–01 (July 7, 2005) (to be codified at 17 C.F.R. pt. 270).

163. *Id.* at 39,396.

164. *Id.* at 39,405, 408.

evidence from, among other sources, a request for public comment and empirical affective data as to whether and, if so, how much proposed rules actually would promote the positive affective impact of greater investor confidence and trust in securities markets.

IV. COST-BENEFIT ANALYSIS IN SECURITIES REGULATION

A. *Current Practice of CBA by the SEC and Other U.S. Financial Regulators*

As a general empirical and factual matter, SEC rulemakings often contain sections with apparently extensive CBA. A casual perusal of many SEC proposed and final rules finds a surprisingly larger percentage of pages devoted to discussing CBA. For example, the final version of the above-mentioned mutual fund governance rule contained a section III, entitled Discussion, which had a subsection A. Costs Resulting From Exemptive Rule Amendments.[165] Both concurring and dissenting SEC Commissioners also engaged in their own additional CBA discussions.[166] Thus, a total of 78% to 79% of the pages in the final version of this rule are devoted to CBA discussions. This might not be surprising because the U.S. Court of Appeals for the D.C. Circuit remanded this rule to the SEC for consideration of its costs.[167]

Another example of an SEC proposal is a rule defining the term "nationally recognized statistical rating organization" contained in a section entitled Consideration of the Costs and Benefits of Proposed Rule, which made up approximately 12% to 13% of the pages in that proposal.[168] A careful examination of these and other such pages reveals that as the SEC practices it, CBA is often uninformative, should not be taken seriously, and ultimately is likely counterproductive. Also, the amount, level, quality, and sophistication of CBA is extremely disappointing in those areas where affective impacts are crucial, such as those often cited by the SEC, affective positive impacts of investor confidence and trust on the integrity of securities markets.

As a matter of general impression, the SEC rulemaking process clearly at least appears to attempt some discussion of CBA. Reasonable people can debate whether SEC attempts at CBA are more analogous to disingenuous image or public relations and informational management spin or instead sincere public discourse and information acquisition and examination. Reasonable individuals also can disagree over whether SEC discussions of CBA are understandable reactions to perceived demand by securities investors and securities industry professionals for the SEC to engage in CBA justifications of its rulemaking, or alternatively overreactions, analogous to

165. *Id.* at 39,391–95.

166. *Id.* at 39,399–401, 403–08.

167. Chamber of Commerce v. SEC, 412 F.3d 133, 145 (D.C. Cir. 2005).

168. Definition of Nationally Recognized Statistical Rating Organization, Securities Act Release No. 8,570, Exchange Act Release No. 51,572, Investment Company Act Release No. 26,834, 70 Fed. Reg. 21,306, 21,319–21 (proposed Apr. 25, 2005) (to be codified at 17 C.F.R. pt. 240).

the practice of defensive medicine by physicians due to fears of unjustified malpractice lawsuits.

Thus, while the SEC engages in CBA in a quite haphazard and an ad hoc fashion, the SEC typically does not perform formal, systematic CBA of its regulations. Neither do any of these other U.S. financial regulators: the Commodity Futures Trading Commission (CFTC); the Federal Deposit Insurance Corporation (FDIC); the Federal Reserve Board of Governors (Fed); and the Federal Trade Commission (FTC). But, current SEC Commissioner Annette Nazareth, during a Senate Banking Committee confirmation hearing of her nomination, stated that she was "keenly aware of the cost of regulation and the importance of balancing these costs with the benefits that regulation seeks to achieve."[169] Each of the aforementioned U.S. financial regulators, the SEC, CFTC, FDIC, FTC, and Fed, is exempt from those major provisions of the executive orders that require CBA by executive agencies.[170] Their exemptions exist because they are so-called independent regulatory agencies, not executive agencies.[171]

The phrase "independent agency" is naturally ironic because "independent" financial regulatory agencies, such as the, SEC "are not independent of politics; they are highly *dependent* upon the industries that they are charged with regulating. That dependency is mediated through Congress, which uses its mediating role to extract financial support from the financial services industry, accounting firms and public companies."[172] The SEC and the other aforementioned U.S. financial regulators differ in this regard at least statutorily from U.S. executive agencies, such as the Environmental Protection Agency, which engages in CBA more regularly and routinely than it does not, in evaluating alternative regulations about environmental social risks.[173] Of course, applications of CBA to environmental, health, and safety regulations understandably have generated much contentious debate and heated controversy.[174] Some believe that, as is also possible with an increasingly influential

169. Deborah Solomon, *Moving the Market: Cox Pledges to Leave Stock-Options Rule Alone*, N.Y. TIMES, July 27, 2005, at C3.

170. *See* Exec. Order No. 12,291, 3 C.F.R. 127 (Feb. 17, 1981); Exec. Order No. 12,866 of September 30, 1993, 58 Fed. Reg. 51,735 (Oct. 4, 1993).

171. 44 U.S.C. § 3502(5) (2000).

172. A.C. Pritchard, *The SEC at 70: Time for Retirement?*, 80 NOTRE DAME L. REV. 1073, 1092 (2005).

173. Cass R. Sunstein, *Cost-Benefit Default Principles*, 99 MICH. L. REV. 1651, 1656–63 (2001).

174. *See* Symposium, *Cost-Benefit Analysis: Legal, Economic, and Philosophical Perspectives*, 29 J. LEGAL STUD. 837 (2000); *see also* FRANK ACKERMAN & LISA HEINZERLING, PRICELESS: ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING 35–40 (2004); EMMA COLEMAN JORDAN & ANGELA P. HARRIS, ECONOMIC JUSTICE: RACE, GENDER, IDENTITY AND ECONOMICS 382–84 (2005); MARK KELMAN, A GUIDE TO CRITICAL LEGAL STUDIES 141–50 (1987); Robert H. Frank, *Why Is Cost-Benefit Analysis So Controversial?*, 29 J. LEGAL STUD. 913, 913–14 (2000); Jeffrey L. Harrison, *Egoism, Altruism, and Market Illusions: The Limits of Law and Economics*, 33 UCLA L. REV. 1309, 1362 (1986); Jeffrey L. Harrison, *Piercing Pareto Superiority: Real People and the Obligations of Legal Theory*, 39 ARIZ. L. REV. 1, 3–4 (1997); Duncan Kennedy, *Cost-Benefit Analysis of Entitlement Problems: A Critique*, 33 STAN. L. REV. 387, 422–45 (1981).

Precautionary Principle,[175] certain politicians and interest groups utilize CBA for delay, inaction, and regulatory paralysis.[176]

B. Cost-Benefit Analysis as Rationality of Social Decision Making

In 1772, Benjamin Franklin recommended a decision procedure in a famous letter to Joseph Priestly (a British scientist, who is known for inventing soda pop water in 1772, and co-discovering oxygen in 1774):

> *[W]rite down the pros and cons for each alternative choice and assign a weight (0 to +10) to each pro and each con (0 to -10), indicating how important that factor is. By adding up the pros and cons (each weight) you get a total score for each alternative choice. Then, by comparing the totals for each alternative course of action, you can usually determine the best choice.*[177]

Clearly, this decision procedure is a form of CBA.

> *It should involve weighing the eventual effectiveness of the solution in solving the problem, your emotional well being during and after the solution, the time and effort required, and your overall personal and interpersonal well being in the end. This is a very complex process, mostly used with important decisions.*[178]

In a sense, CBA simply generalizes to social decision-making an individual decision-making procedure. If we denote total benefits to some decision, d, as $TB(d)$ and total costs of that decision, d, as $TC(d)$, then CBA is a procedure for solving Max $[TB(d)\text{-}TC(d)]$. If both total benefits and total costs are differentiable functions of the decision variable, then the first order necessary condition for an optimal d^* is that value of d, d^*, which satisfies $MB(d^*) - MC(d^*) = 0$, or $MB(d^*) = MC(d^*)$.[179] In other words, the value of the decision variable that maximizes the net difference between total benefits and total costs satisfies the equation marginal benefits equal marginal costs. If total benefits and total costs are twice differentiable

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175. *See, e.g.*, Mike Feintuck, *Precautionary Maybe, But What's the Principle? The Precautionary Principle, the Regulation of Risk, and the Public Domain*, 32 J.L. & SOC'Y 371, 372, 393 (2005). *But see* Dan M. Kahan et al., *Fear of Democracy: A Cultural Evaluation of Sunstein on Risk*, 119 HARV. L. REV. 1071, 1071–74 (2006) (reviewing and critiquing CASS R. SUNSTEIN, LAWS OF FEAR: BEYOND THE PRECAUTIONARY PRINCIPLE (2005)).

176. CASS R. SUNSTEIN, RISK AND REASON: SAFETY, LAW, AND THE ENVIRONMENT 293 (2002) (stating that "[a]ny effort to ensure cost-benefit balancing should ensure that it does not produce 'paralysis by analysis'"); *see also* Christopher J. Anderson, *The Psychology of Doing Nothing: Forms of Decision Avoidance Result from Reason and Emotion*, 129 PSYCHOL. BULL. 139 (2003).

177. CLAYTON E. TUCKER-LADD, PSYCHOLOGICAL SELF-HELP 1310 (2004), *available at* http://mhnet.org/psyhelp/chap13/chap13p.htm.

178. *Id.*

179. BRIAN BEAVIS & IAN M. DOBBS, OPTIMIZATION AND STABILITY THEORY FOR ECONOMIC ANALYSIS 34 (1990).

functions of the decision variable and strictly concave and strictly convex functions of the decision variable, respectively, (that is, *MB* is a strictly decreasing function of *d* and *MC* is a strictly increasing function of *d*) and the decision variable belongs to a compact, convex set, then both the first and second order conditions for a strict maximum will be satisfied.[180] This means that equating marginal benefits and marginal costs is also a sufficient condition to solve for the unique optimal d^*.

A central question about CBA is at what level of detail and formality should we engage in CBA? An ever-changing apocryphal story,[181] attributed to Howard Raiffa,[182] a co-founder of modern decision theory, is relevant. Raiffa was discussing with his dean and friend at Columbia an employment offer that he had received from Harvard. His colleague jokingly told Raiffa to set up a decision tree analysis of his choice problem and act accordingly. Raiffa responded this was a serious decision and that formal decision analysis is a fine mechanical aid or tool for trivial decisions, but such decisions as where to live and work, whom to date and marry, and whether and how many children to have are too important for formal decision analysis because such analyses miss too much.[183]

Raiffa's response suggests that utilizing formal CBA has diminishing marginal productivity in such personal domains. While people may informally estimate and weigh approximate pros and cons of various alternatives in making decisions about whether to date, marry, or have children with another particular individual, people also may feel that formally engaging in CBA for such important and personal choices is at best foolhardy and misguided, and at worst inappropriate and self-defeating. In the words of personal advice from a legal scholar, there is and should be neither calculating nor calculations in romantic love.[184]

Recent psychological research finds that people utilize dual processing systems involving two different modes of valuation:[185] valuation by calculation and valuation by feeling. Two economists recently developed a theoretical model in which people maximize a weighted sum of scalar outcomes resulting from two processes.[186] A deliberative process corresponds to conventional non-affective rational choice. Another affective process corresponds to emotions and motivational drives. Their model analytically captures a familiar being "of two minds" experience. Their particular linear functional form for combining separate deliberation

180. *See, e.g., id.* at 28, 36; KELVIN LANCASTER, MATHEMATICAL ECONOMICS 17 (1968).

181. MAX H. BAZERMAN, JUDGMENT IN MANAGERIAL DECISION MAKING 63–64 (5th ed. 2002).

182. *See generally* HOWARD RAIFFA, DECISION ANALYSIS: INTRODUCTORY LECTURES ON CHOICES UNDER UNCERTAINTY (2d ed. 1970).

183. Huang, *supra* note 147.

184. Personal Communication with Marleen A. O'Connor (Sept. 10, 2005) (on file with author).

185. Christopher K. Hsee & Yuval Rottenstreich, *Music, Pandas, and Muggers: On the Affective Psychology of Value*, 133 J. EXPERIMENTAL PSYCHOL. 23 (2004).

186. George Loewenstein & Ted O'Donoghue, Animal Spirits: Affective and Deliberative Processes in Economic Behavior (May 4, 2004) (unpublished manuscript, *available at* http://www.hss.cmu.edu/departments/sds/faculty/Loewenstein/will7_04.pdf).

and affective processes is merely a heuristic representation, intended to be familiar and helpful to conventionally trained neoclassical economists.[187]

Presumably, what many people find annoying, disconcerting, and frustrating about CBA is that it reduces contextually rich decisions into simply a matter of doing arithmetic. As one corporate law scholar noted, calculations in both personal and commercial relationships are complicated, but even the latter are more complicated than supporters of calculations think.[188] Another related critique of CBA is that it often involves "projections" of future values, even purely monetary figures, which seem really to be just made up, e.g., GDP growth, or stock market ups or downs over the next several years. One reason that many people find CBA exasperating is that CBA misses or significantly undervalues non-market based and subjective values. In other words, what a lot of individuals find problematic about CBA in practice often is that it excludes hard-to-measure benefits and costs or soft variables and hence overlooks important factors.[189] A more fundamental problem with CBA is that what are or should count as benefits and costs are not necessarily clear, but are taken instead as being immutably given by policymakers.[190] In addition, there are well-known conceptual ambiguities, practical difficulties, and theoretical challenges to eliciting truthfully an individual's preferences or valuations in a number of non-affective contexts: agricultural economics,[191] environmental economics,[192] experimental economics,[193] public economics,[194] and marketing.[195]

Neoclassical economics assumed that because people are rational, economists could infer an individual's private, subjective, and unobservable preferences from that individual's public, objective, and observable behavior in terms of market choices. This revealed preference approach requires that preference orderings are well-behaved, not only in the sense of satisfying certain mathematical axioms, such

187. Julie A. Nelson, *Rationality and Humanity: A View from Feminist Economics* 17 (Global Dev. & Env't Inst., Working Paper No. 05-04, 2005), *available at* http://ase.tufts.edu/gdae/Pubs/wp/05-04RationalityHumanity.pdf.

188. *See* Claire A. Hill, *Law and Economics in the Personal Sphere*, 29 L. & SOC. INQUIRY 219, 253 (2004) (reviewing RICHARD A. POSNER, SEX AND REASON (1992), ERIC A. POSNER, LAW AND SOCIAL NORMS (2000), ROBERT H. FRANK, LUXURY FEVER: WHY MONEY FAILS TO SATISFY IN AN ERA OF EXCESS (1999), and MARGARET BRINIG, FROM CONTRACT TO COVENANT: BEYOND THE LAW AND ECONOMICS OF THE FAMILY (2000)).

189. HOWELL E. JACKSON ET AL., ANALYTICAL METHODS FOR LAWYERS 372 (2003).

190. Claire A. Hill, *Beyond Mistakes: The Next Wave of Behavioural Law and Economics*, 29 QUEEN'S L.J. 563, 582 (2004) (pointing out how CBA presupposes that categories of costs and benefits are known already).

191. *See, e.g.*, Jayson L. Lusk et al., *Experimental Auction Procedure: Impact on Valuation of Quality Differentiated Goods*, 86 AM. J. AGRIC. ECON. 389 (2004).

192. *See, e.g.*, Robert Sugden, *Anomalies and Stated Preference Techniques: A Framework for a Discussion of Coping Strategies*, 32 ENVTL. & RES. ECON. 1 (2005).

193. *See, e.g.*, Glenn W. Harrison et al., *Experimental Methods and Elicitation of Values*, 7 EXPERIMENTAL ECON. 123, 124 (2004).

194. *See, e.g.*, Ronald G. Cummings & Laura O. Taylor, *Unbiased Value Estimates for Environmental Goods: A Cheap Talk Design for the Contingent Valuation Method*, 89 AM. ECON. REV. 649, 649 (1999).

195. Matthew C. Rousu et al., *Consumer Willingness to Pay for "Second-Generation" Genetically Engineered Products and the Role of Marketing Information*, 37 J. AGRIC. & APPLIED ECON. 647, 648 (2005).

as the weak axiom of revealed preference;[196] but also, more crucially in the sense of being stable across contexts and over time. Much of recent behavioral and experimental economics research empirically demonstrates how much so-called preferences are constructed from,[197] and sensitive to, situational contexts.[198] Experimental economist Charles Plott proposed that people discover their preferences through a process of deliberation, information gathering, and trial-and-error learning.[199]

V. IS THE SEC REQUIRED BY LAW TO PERFORM ONLY CBA?

In a 2006 summer blockbuster movie, the character Lord Cutler Beckett declares that "loyalty is no longer the currency of the realm." When another character, Elizabeth Swann, then asks him what is the currency of the realm, he replies that: "[c]urrency is the currency of the realm."[200] This Part examines whether the SEC is required by the language of its organizing statutes to utilize money and wealth as exclusive currencies for evaluating its rules, or whether that statutory language provides the SEC discretion to also utilize affective and subjective well-being impacts as currencies in promulgating securities regulations.

The organic statutes of the SEC require that the SEC rulemaking process consider some notion of "efficiency" among other desired economic objectives because the "Definitions" parts of each of its organizing statutes: the Securities Act of 1933;[201] the Securities Exchange Act of 1934;[202] the Investment Company Act of 1940;[203] and the Investment Advisors Act of 1940;[204] mandate that the SEC in promulgating rules "consider, in addition to the protection of investors, whether the action will promote efficiency, competition, and capital formation." So, there appears to be statutory textual bases for CBA in SEC rulemaking because CBA also involves a particular economic notion of efficiency, namely Kaldor-Hicks efficiency.[205] But, does promoting "efficiency" necessarily mean CBA? There are at least four competing, different concepts of economic efficiency,[206] two providing differ-

196. *See, e.g.*, Kenneth J. Arrow, *Rational Choice Functions and Orderings*, 26 ECONOMICA 121, 123 (1959).

197. *See, e.g.*, Lucy F. Ackert et al., *When the Shoe Is on the Other Foot: Experimental Evidence on Evaluation Disparities* 1–2 (Fed. Reserve Bank of Atlanta, Working Paper 2005-17, 2005), *available at* www.frbatlanta.org.

198. *See, e.g.*, CHOICES, VALUES, AND FRAMES (Daniel Kahneman & Amos Tversky eds., 2000).

199. Charles R. Plott, *Rational Individual Behavior in Markets and Social Choice Processes: The Discovered Preference Hypothesis*, *in* THE RATIONAL FOUNDATIONS OF ECONOMIC BEHAVIOUR (Kenneth J. Arrow et al. eds., 1996).

200. PIRATES OF THE CARIBBEAN: DEAD MAN'S CHEST (Walt Disney Pictures 2006).

201. 15 U.S.C. § 77b-2(b) (2000).

202. *Id.* § 78c-2(f).

203. *Id.* § 80a-2(c).

204. *Id.* § 80b-2(c).

205. *See, e.g.*, ZERBE & DIVELY, *supra* note 5, at 12–13.

206. Two additional forms of efficiency not considered here are Keynesian efficiency (which focuses on lost potential output when an economy experiences recession and thus less than full employment of labor and resources) and Schumpeterian efficiency (which addresses technical innovation, market leadership, and industrial stabilization). *See* ROBERT KUTTNER, EVERYTHING FOR SALE: THE VIRTUES AND LIMITS OF MARKETS 24–28 (1996).

ing conceptions of financial or informational efficiency, and two involving alternative notions of allocational efficiency. In addition, there is Judge Richard Posner's notion of efficiency as total wealth maximization.[207] In light of these multiple interpretations of what efficiency can mean, how should the SEC interpret "efficiency" from its organizing statutes?

A. *Informational Efficiencies*

First, financial economists along with some corporate and securities law scholars utilize the word "efficiency" in the context of the Efficient Capital Markets Hypothesis (ECMH).[208] Second, some corporate and securities legal scholars differentiate informational efficiency in the sense of the ECMH from another concept of informational efficiency known as fundamental (value) efficiency.[209] The difference between these concepts is that a securities "market is 'informationally efficient' if certain classes of information are immediately incorporated into a stock's price; a market is 'fundamentally efficient' if a stock's price reflects only information relating to the net present value of the corporation's future profits."[210] Recently, a number of legal scholars have questioned the relevance of informational efficiency for securities regulation[211] on the grounds that securities markets might result in allocations that are socially undesirable even if informationally efficient.

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207. *See, e.g.*, Richard A. Posner, *Utilitarianism, Economics, and Legal Theory*, 8 J. Legal Stud. 103, 119–35 (1979). For criticisms of wealth maximization as efficiency, see Jules L. Coleman, *Efficiency, Utility, and Wealth Maximization*, 8 Hofstra L. Rev. 509, 512, 525–26 (1980); Ronald M. Dworkin, *Is Wealth a Value?*, 9 J. Legal Stud. 191, 191–92 (1980); Anthony T. Kronman, *Wealth Maximization as a Normative Principle*, 9 J. Legal Stud. 227, 227–28 (1980).

208. *See* Brealey et al., *supra* note 115, at 333–37 (defining the ECMH and three levels of efficiency); Stephen J. Choi & A.C. Pritchard, Securities Regulation: Cases and Analysis 33–35 (2005) (discussing three versions of the ECMH); Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. Fin. 383, 384–88 (1970) (defining an efficient capital market); Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 Va. L. Rev. 549, 553 (1984) (introducing the notion of informational efficiency to corporate and securities law scholarship).

209. *See* Choi & Pritchard, *supra* note 208, at 36 (distinguishing between informational and fundamental efficiency); Ian Ayres, *Back to* Basics*: Regulating How Corporations Speak to the Market*, 77 Va. L. Rev. 945, 946–47 (1991) (same); Lynn A. Stout, *Are Stock Markets Costly Casinos? Disagreement, Market Failure, and Securities Regulation*, 81 Va. L. Rev. 611, 646–47 (1995) (same); Lynn A. Stout, *The Mechanisms of Market Inefficiency: An Introduction to the New Finance*, 28 J. Corp. L. 635, 641 (2003) (distinguishing between informational efficiency and fundamental value efficiency); William K.S. Wang, *Some Arguments that the Stock Market is Not Efficient*, 19 U.C. Davis L. Rev. 341, 344–49 (1986) (same).

210. Ayres, *supra* note 209, at 946–47.

211. *See* Donald C. Langevoort, *Theories, Assumptions and Securities Regulation: Market Efficiency Revisited*, 140 U. Pa. L. Rev. 851, 854 (1992) (contrasting the huge difference between the persistent conception of market efficiency in the dominant legal culture versus that among economists); Lynn A. Stout, *The Unimportance of Being Efficient: An Economic Analysis of Stock Market Pricing and Securities Regulation*, 87 Mich. L. Rev. 613, 618 (1988) (finding "that the connection between prices in the public trading markets for stocks and the allocation of real resources is a weak one, and that stock markets may have far less allocative importance than has generally been assumed"); *see also* Lynn A. Stout, *Inefficient Markets and the New Finance*, 14 J. Fin. Transformation 95, 96 (2005) (critiquing ideas of security market efficiency).

B. *Pareto Allocational Efficiency*

Third, non-financial economists outside of the contexts of CBA and the University of Chicago style of law and economics utilize the term "efficiency" to mean a concept of allocational efficiency as defined by the Italian economist, Vilfredo Pareto.[212] An allocation of resources is termed Pareto efficient if there is no reallocation of resources that could make one person better off according to that person's own preferences and make nobody else worse off according to their own preferences. A pair of pioneering economists, the already mentioned American Kenneth Joseph Arrow, a co-recipient of the 1972 Alfred Nobel Prize in Economic Science, and the French-born American Gerard Debreu, the recipient of the 1983 Alfred Nobel Prize in Economic Science, created a mathematical model of and proved that the operation of a perfectly competitive system of markets results in equilibrium allocation of resources that is Pareto efficient.[213] Thus, Arrow and Debreu clarified and formalized the famous metaphor of the Scottish political economist, Adam Smith, of an "invisible hand" for a system of perfectly competitive markets that is able to guide the decentralized choices of individuals pursuing their own self-interest into an aggregate outcome that is normatively and socially desirable in a precise and technical, but also limited and restrictive, sense.[214]

C. *Kaldor-Hicks Allocational Efficiency*

Fourth and finally, non-financial economists and many legal scholars utilize the word "efficiency" in the context of CBA to mean another form of allocational efficiency, termed Kaldor-Hicks (KH) efficiency, named after a famous economist, Nicholas Kaldor, and another famous economist and co-recipient of the 1972 Alfred Nobel Prize in Economic Science, Sir John Richard Hicks. An allocation of resources is KH efficient if there is no reallocation of resources that makes those who gain so much better off that they remain better off even if they were to compensate those who lose from that reallocation. Kaldor's hypothetical compensation test asks, after a reallocation of resources, if the maximum amount of money that winners are willing to pay exceeds the minimum amount of money that losers are willing to accept.[215]

A famous economist, Tibor de Scitovsky, demonstrated that there can be two allocations of resources, call them A and B, such that a move from A to B passes

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212. *See, e.g.*, ARROW, *supra* note 7, at 19 (defining Pareto efficiency); Guido Calabresi, *The Pointlessness of Pareto: Carrying Coase Further*, 100 YALE L.J. 1211, 1215 (1991) (same).

213. Kenneth J. Arrow & Gerard Debreu, *Existence of an Equilibrium for a Competitive Economy*, 22 ECONOMETRICA 265, 266 (1954) (providing their pioneering model of a general equilibrium and proving that under certain hypotheses, a competitive general equilibrium allocation exists and is Pareto efficient).

214. ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS bk. 4, ch. 2 (1776).

215. Nicholas Kaldor, *Welfare Propositions of Economics and Interpersonal Comparisons of Utility*, 49 ECON. J. 549, 550 (1939).

Kaldor's hypothetical compensation test, but so does a move from B to A.[216] Scitovsky developed a different, but related hypothetical compensation test, asking if the maximum amount of money losers are willing to pay winners to prevent such a proposed reallocation is less than the minimum amount of money that winners are willing to accept as a bribe to forgo the reallocation. This hypothetical compensation test is a reallocation of resources from the viewpoint of losers. A proposed reallocation of resources passes Scitovsky's criterion if that reallocation passes both Kaldor's and Scitovsky's hypothetical compensation tests. In other words, the Scitovsky criterion is the above pair of hypothetical compensation tests. Hicks demonstrated the relationships between Kaldor's hypothetical compensation test and Scitovsky's criterion and two concepts in microeconomic applied price theory, known as compensating variations and equivalent variations.[217]

Economists and legal scholars asserting efficiency of CBA typically mean efficiency in the sense of Kaldor-Hicks. Scholars criticizing efficiency of CBA typically find Kaldor-Hicks efficiency to be an unsatisfactory welfare criterion for evaluating social policy because winners do not actually compensate losers, even when those winners under a KH efficiency standard hypothetically can compensate losers and still end up better off net of such compensation. More generally, traditional law and economics scholars, like economists, are interested in efficiency. However, legal scholars concerned with questions of identity have focused their investigations on issues of subordination, identity, cultural context, and legal indeterminacy.[218] In other words, efficiency of any type fails to address issues that are not related to a particular type of efficiency, including such affective concerns as those arising from envy,[219] jealousy,[220] and procedural or process considerations.

D. Indeterminacy of Efficiency

It makes a difference whether the SEC interprets efficiency in an informational or allocational sense because there are equilibrium allocations that result from a system of perfectly competitive markets that are informationally efficient, but not allocationally efficient, and vice versa.[221] Corporate finance scholars,[222] judicial opinions,[223] corporate law and securities regulation scholars,[224] and even the SEC

216. T. De Scitovszky, *A Note on Welfare Propositions in Economics*, 9 Rev. Econ. Stud. 77, 88 (1941).

217. J.R. Hicks, *The Foundations of Welfare Economics*, 49 Econ. J. 696, 700 (1939).

218. *See generally* Jordan & Harris, *supra* note 174.

219. *But see* Hal Varian, *Equity, Envy, and Efficiency*, 9 J. Econ. Theory 63 (1974).

220. Mui, *supra* note 20, at 312.

221. *See* James Dow & Gary Gorton, *Stock Market Efficiency and Economic Efficiency: Is There A Connection?*, 52 J. Fin. 1087, 1109, 1113 (1997) (proving that informational efficiency is neither sufficient nor necessary for allocational efficiency); *see also* Ruben Lee, What is an Exchange? The Automation, Management, and Regulation of Financial Markets 221–24 (1998) (discussing how allocational efficiency differs from informational efficiency).

222. *See, e.g.*, Brealey et al., *supra* note 115, at 337.

223. *See* Basic Inc. v. Levinson, 485 U.S. 224, 246 (1988) ("Recent empirical studies have tended to confirm Congress' premise that the market price of shares traded on well-developed markets reflects all publicly availa-

itself,[225] usually employ the word "efficiency" to mean informational efficiency in the sense of the ECMH.[226] This textual ambiguity means that any statutory basis for the SEC to perform CBA is attenuated in comparison with a traditional executive order standard because the notion of "efficiency" is not self-evidently the concept of Kaldor-Hicks efficiency that is routinely utilized in CBA. Also, there is no statutory textual basis providing any guidance for how the SEC should balance any particular notion of promoting efficiency in performing CBA against each of these other goals: protection of investors, promotion of competition, and encouragement of capital formation.

Finally, examining the legislative history to help determine statutory intent is unhelpful because various notions of informational efficiency arose only after passage of the organic statutes of the SEC. Although economists already developed notions of allocational efficiency before the passage of the organic statutes of the SEC, widespread regulatory adoption of CBA and Kaldor-Hicks efficiency gained momentum only during the 1980s with the rise of the modern regulatory state,[227] coming several decades after passage of the organic statutes of the SEC. It is also possible that "efficiency" in the organic statutes of the SEC should be interpreted to have its plain English meaning of a lack of wastefulness. Although such a meaning is related to, it does not exactly coincide with either Kaldor-Hicks or Pareto allocational efficiency. Whatever definition of efficiency the SEC adopts, there remain problems with a lack of legislative history and statutory textual guidance about balancing efficiency against other notions of efficiency, investor protection, encouraging capital formation, and fostering competition.

VI. AFFECTIVE IMPACTS OF VARIOUS SECURITIES LAWS

Empirically, the SEC's favorite component of its regulatory toolbox is mandatory securities disclosure.[228] Both the overarching philosophy and underlying principle of U.S. federal securities regulation can be summed up by the phrase: disclosure,

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ble information, and, hence, any material misrepresentations."); Wielgos v. Commonwealth Edison Co., 892 F.2d 509, 510 (7th Cir. 1989) ("The Securities and Exchange Commission believes that markets correctly value the securities of well-followed firms, so that new sales may rely on information that has been digested and expressed in the security's price."); Cammer v. Bloom, 711 F. Supp. 1264, 1286–87 (D.N.J. 1989) (providing a five-factor test for when a market is efficient for purposes of the fraud-on-the-market principle).

224. *See, e.g.*, Gilson & Kraakman, *supra* note 208; *see also* Donald C. Langevoort, *Foreword: Revisiting Gilson and Kraakman's Efficiency Story*, 28 J. CORP. L. 499, 500 (2003) (discussing the seminal contributions of Gilson & Kraakman's article).

225. *See, e.g.*, STAFF OF H. COMM. ON INTERSTATE AND FOREIGN COMMERCE, 95TH CONG., REPORT OF THE ADVISORY COMM. ON CORPORATE DISCLOSURE TO THE SEC (Comm. Print 1977).

226. *But see* William O. Fisher, *Does the Efficient Market Theory Help Us Do Justice in A Time of Madness?*, 54 EMORY L.J. 843, 847 (2005) (raising technical and theoretical challenges over applying the ECMH underlying the so-called fraud-on-the-market doctrine to securities fraud cases that arose from the Internet, high-tech, and telecommunications bubble during 1998–2001).

227. SUNSTEIN, *supra* note 12, at 10.

228. *See* Stephen M. Bainbridge, *Mandatory Disclosure: A Behavioral Analysis*, 68 U. CIN. L. REV. 1023, 1023 (2000) ("Mandatory disclosure is a—if not *the*—defining characteristic of U.S. securities regulation.").

more disclosure, and even further disclosure. Proposed SEC rules that mandate disclosure of director and executive compensation provide a recent example of a tried and true regulatory propensity to favor disclosure over more direct or "hands on" command and control regulation.[229] In commenting on the likely impact of rules mandating disclosure of CEO compensation, former SEC Commissioner Joseph A. Grundfest quipped that the half-life of shame is much shorter than that of envy.[230] Other SEC rules concern the timing of certain voluntary information provision, such as rules against gun-jumping in registered public offerings.[231] An often recurring regulatory option is offering and targeting financial education designed to improve financial literacy, investment behavior, and retirement planning.[232]

Another perennial regulatory favorite is the use of default rules. An example is provided by default allocations in retirement plans.[233] Another example is that of default provisions or contractual terms in personal credit card borrowing.[234] A recent example is Larry Ribstein's "humble" approach to securities regulation[235] that permits "actors to self-define their certification level,"[236] or that would "impose a minimum standard but permit firms to 'comply or explain'—that is, opt out of compliance as long as they explain that they are doing so."[237] Another recent example is Roberta Romano's proposal that firms be able to opt-into regulation.[238] A final regulatory proposal is Robert Clark's novel idea for building into regulation a continual research and ongoing reassessment adjustment procedure.[239] Securities regulators can fine-tune policies in response to feedback that analyzing ex post affective impacts provides over time. In this manner, analysis of affective impacts will help provide an empirical basis for and principled approach to evolving regulation.

A previous analysis of emotional consequences of mandatory securities disclosures provides an example of analyzing the affective impacts of securities regula-

229. Press Release, SEC, SEC Votes to Propose Changes to Disclosure Requirements Concerning Executive Compensation and Related Matters (Jan. 17, 2006), *available at* http://www.sec.gov/news/press/2006-10.htm.

230. Personal Communication with Joseph A. Grundfest (May 7, 2006) (on file with author).

231. *See* 15 U.S.C. § 77e (2000) (stating the so-called gun-jumping rules); *see also* CHOI & PRITCHARD, *supra* note 208, at 423–63 (discussing the so-called gun-jumping rules).

232. *See, e.g.*, U.S. Financial Literacy and Education Commission, http://www.mymoney.gov (last visited Feb. 10, 2008).

233. *See* Richard H. Thaler & Shlomo Benartzi, *Save More Tomorrow™: Using Behavioral Economics to Increase Employee Saving*, 112 J. POL. ECON. S164, S170–71 (2004); *see also* Henrik Cronqvist & Richard H. Thaler, *Design Choices in Privatized Social-Security Systems: Learning from the Swedish Experience*, 94 AM. ECON. REV. 424, 424–25 (2004) (discussing designing default funds).

234. Cass R. Sunstein, *Boundedly Rational Borrowing*, 73 U. CHI. L. REV. 249, 266–67 (2006) (imagining a Borrow Less Today plan).

235. BUTLER & RIBSTEIN, *supra* note 3, at 97.

236. Ribstein, *Sarbox: The Road to Nirvana*, *supra* note 2, at 296.

237. Ribstein, *Sarbanes-Oxley After Three Years*, *supra* note 2.

238. *See* Romano, *supra* note 2, at 1596 (proposing changing SOX's corporate governance mandates into statutory defaults).

239. Clark, *supra* note 2, at 312.

tion.[240] That analysis defined irrational exuberance and anxiety and explained how both types of affect have policy and regulatory implications for a long-standing debate over the rationales for, and effectiveness of, mandatory securities disclosures. In particular, that analysis observed that even if some affect dissipates, investor euphoria or anxiety already may respectively "affect issuers of securities in terms of a lower or higher cost of capital due to such emotional reactions."[241] Affective impacts may be temporary or able to be learned-away; but even if they are so, that does not mean they should not be counted because they often will have irreversible and permanent consequences upon such traditional economic variables as levels of aggregate consumption, credit card debt, investment, stock prices, and stock volume. Rather than reproduce more details from that earlier analysis, the rest of this Part offers a "top ten" list of related but new thoughts about analyzing affective impacts of particular categories of securities regulations.

A. Affective Impacts of Mandatory Securities Disclosures

Standard analyses of mandatory securities disclosures, like most forms of mandated information provision, do not adequately consider emotional reactions to information. It is well-recognized that investors can suffer cognitively from information overload in terms of being unable to cognitively process and understand too much information.[242] But people also can suffer affectively from information overload in terms of feeling anger, annoyance, apathy, boredom, frustration, helplessness, listlessness, and stress upon receipt of too much (or too little) information or information too quickly (or too slowly). Thus, mandating additional securities disclosures might produce little or no cognitive benefits in the form of better financial decision making, yet potentially large emotional impacts in the form of affective overload. Analysis of affective consequences of information regulation should not be limited to securities law. Affective impacts of regulating information provision should be considered in all of these contexts: federally mandated and standardized information disclosures provided to credit card and other open-ended credit consumers;[243] federal regulation of specific disclosures required for such closed-end, that is, installment loans as those for automobiles and home mort-

240. Peter H. Huang, *Regulating Irrational Exuberance and Anxiety in Securities Markets*, *in* THE LAW AND ECONOMICS OF IRRATIONAL BEHAVIOR 501, 520–23 (Francesco Paresi & Vernon Smith eds., 2005) (analyzing emotional benefits and costs to mandatory securities disclosures).

241. *Id.* at 520.

242. *See* Troy A. Paredes, *Blinded By the Light: Information Overload and Its Consequences for Securities Regulation*, 81 WASH. U. L.Q. 417, 441 (2003) (highlighting concerns about investors, securities analysts, brokers, and money managers all experiencing information overload from disclosures mandated by federal securities laws); Lauren E. Willis, *Decisionmaking and the Limits of Disclosure: The Problem of Predatory Lending: Price*, 65 MD. L. REV. 707 (2006) (applying literature on decision-making from psychology and behavioral economics to analyze predatory lending).

243. *See, e.g.*, Bankruptcy Abuse Prevention and Consumer Protection Act of 2005, Pub. L. No. 109-8, 119 Stat. 23 (to be codified as amended in scattered sections of 11, 12, and 18 U.S.C.); Truth in Lending Act, 70 Fed. Reg. 60,235 (Oct. 17, 2005) (to be codified at 12 C.F.R. pt. 226).

gages;[244] federal consumer protection statutes prohibiting deceptive advertising and misleading statements;[245] products liability or tort law's imposition on manufacturers of a duty to warn;[246] and more generally our common law of contracts.[247] All too frequently, regulators advocate more disclosure to remedy informational asymmetries. A noteworthy exception is a 2005 symposium entitled *Federal Consumer Protection Regulation: Disclosures and Beyond* hosted by the Payment Cards Center of the Federal Reserve Bank of Philadelphia.[248] A recommendation of that symposium's participants is to seek input from marketers, researchers, and focus groups of consumers for creating and revising disclosures,[249] in addition "to incorporat[ing] lessons from the field of communication theory into the disclosure creation process."[250]

B. Should the SEC Worry About Scaring Investors?

Another affective impact for some people from additional mandatory securities disclosures is what behavioral economist George Loewenstein has called the "work of worry," a delightful phrase that captures the idea that if people engage in certain risky activities despite their experiencing fear about some possible bad consequences of such activities, their fear is a deadweight loss of suffering. Loewenstein and Ted O'Donoghue provide two important and timely examples of the work of worry.[251] Their first example is a terrorist alert warning system that offers no guidance as to how individuals can alter their behavior to improve their safety, imposes privacy costs on many individuals, inconveniences most airline passengers, and terrifies a great number of ordinary individuals. Their second and more controversial set of examples are health and safety warnings that have little or no effect, except for scaring their intended target audience in addition to perhaps others. More generally, as Loewenstein and O'Donoghue noted, mandating information provision might not be an example of asymmetric paternalism or conservative regulation,[252] or libertarian paternalism,[253] or soft paternalism.[254] Requiring provision of information can impose large negative affective psychic impacts, such as fear,

244. *See, e.g.*, Home Mortgage Disclosure Act, 12 U.S.C. § 2801 (2000); Consumer Credit Protection Act of 1968, 15 U.S.C. § 1601.

245. *See, e.g.*, Federal Trade Commission Act § 5, 15 U.S.C. § 45(a)(1); Lanham Act, 15 U.S.C. § 1125(a).

246. Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. REV. 630, 693 (1999); Howard Latin, *"Good" Warnings, Bad Products, and Cognitive Limitations*, 41 UCLA L. REV. 1193, 1195 (1994).

247. *See generally* Richard Craswell, *Taking Information Seriously: Misrepresentation and Nondisclosure in Contract Law and Elsewhere*, 92 VA. L. REV. 565 (2006).

248. MARK J. FURLETTI, FEDERAL CONSUMER PROTECTION REGULATION: DISCLOSURES AND BEYOND (2005), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=802746.

249. *Id.* at 10–11.

250. *Id.* at 11.

251. George Loewenstein & Ted O'Donoghue, *"We Can Do This the Easy Way or the Hard Way": Negative Emotions, Self-Regulation, and the Law*, 73 U. CHI. L. REV. 183, 200–01 (2006).

252. *See* Colin Camerer et al., *Regulation for Conservatives: Behavioral Economics and the Case for "Asymmetric Paternalism,"* 151 U. PA. L. REV. 1211 (2003).

guilt, or shame, without producing much in the form of any countervailing benefits.

Loewenstein and O'Donoghue suggested that in the context of such medical testing as mammograms for women and prostrate-specific antigen (PSA) tests for men, scary messages are not only ineffective at convincing patients to seek testing, but also trigger worst-case scenarios or fears and personal anxieties of many patients. They also suggested that although food labeling has clear nutritional informational benefits, it also can foster a neurotic and unhealthy atmosphere towards eating. They instead supported restricting the supply of temptations, such as regulating the content and portion size of food, or banning subliminal advertising. Such supply-side restrictions could be more effective, with fewer emotional impacts in terms of negative feelings, to combat a nationwide U.S. obesity epidemic,[255] if there genuinely is one,[256] and if that epidemic can be fought. Recent empirical and theoretical research is burgeoning about economic and non-economic factors contributing to a rising trend in obesity.[257] Two economists demonstrated empirically that variation in health behaviors is due to genetic factors and behavior-specific situational influences.[258] Another pair of economists recently statistically estimated a negative relationship between obesity and self-reported happiness in the United States, but a positive correlation between obesity and self-reported happiness in Russia.[259] Thus, whether dieting or even obesity is associated with depression, stress, and unhappiness not only varies across individuals, but also cultures.

C. Cultural, Diversity, and Heterogeneity in Affective Impacts of Securities Disclosures

An individual's emotional reactions to any particular stimulus and regulatory policy are likely to be distributed non-uniformly over a population. Such individual variation presents theoretical and empirical challenges for aggregation of affective

253. *See* Cass R. Sunstein & Richard H. Thaler, *Libertarian Paternalism Is Not An Oxymoron*, 70 U. CHI. L. REV. 1159 (2003); Richard H. Thaler & Cass R. Sunstein, *Libertarian Paternalism*, 93 AM. ECON. REV. 175 (2003).

254. *See* Edward L. Glaeser, *Paternalism and Psychology*, 73 U. CHI. L. REV. 133, 149 (2006).

255. *See* Jeff Strnad, *Conceptualizing the "Fat Tax": The Role of Food Taxes in Developed Economies*, 78 S. CAL. L. REV. 1221, 1223 (2005); SUPER SIZE ME (Samuel Goldwyn Films 2004).

256. *See* PAUL F. CAMPOS, THE OBESITY MYTH : WHY AMERICA'S OBSESSION WITH WEIGHT IS HAZARDOUS TO YOUR HEALTH (2004); MICHAEL GARD & JAN WRIGHT, THE OBESITY EPIDEMIC: SCIENCE, MORALITY, AND IDEOLOGY (2005); J. ERIC OLIVER, FAT POLITICS: THE REAL STORY BEHIND AMERICA'S OBESITY EPIDEMIC (2006); Paul Campos, *The Legalization of Fat: Law, Science, and the Construction of a Moral Panic* (Univ. of Colo. Law Legal Studies Research Paper No. 06-16, 2006), *available at* http://ssrn.com/abstract=902693.

257. Odelia Rosin, *The Economic Causes of Obesity*, J. ECON. SURVEYS (forthcoming 2008).

258. David M. Cutler & Edward Glaeser, *What Explains Differences in Smoking, Drinking, and Other Health-Related Behaviors?*, 95 AM. ECON. REV. 238, 239 (2005).

259. Carol Graham & Andrew Felton, *Variance in Obesity Across Cohorts and Countries: A Norms-Based Explanation Using Happiness Surveys* 21 (Brookings Inst., Ctr. on Soc. & Econ. Dynamics, Working Paper No. 42, 2005), *available at* http://www.brookings.edu/es/dynamics/papers/CSED_wp42.pdf.

impacts as well as regulatory policy based upon affective impacts.[260] In the context of securities regulation, there are multiple actual, intended, and potential audiences to information transmissions that securities issuers make voluntarily or because they are required to by law. Possible recipients of such messages include these groups: small individual retail investors, large sophisticated institutional investors, securities brokers, professional securities analysts, and securities fraud plaintiff's attorneys. To be sure, even within each of these above groups, there is likely to be much individual variation in affective responses to securities information. But there are likely to be predictable differences across these groups in terms of their average affective response to securities information. At least, some of these differences will be due to education, experience, and temperament. There also might be individual variation in cognitive responses to securities information, but probably less than for affective responses because people are both aware of and similarly trained in their cognitive reactions to information. There is also psychological research indicating that age-related changes in affect cause age differences in decision making processes.[261] Finally, recent research finds that differences in people's economic attitudes can be due to differences in their educational backgrounds,[262] and intensity of religious upbringing.[263] Consistent and systematic differences in affective processing of information across identifiable and observable subpopulations means that disclosure should not come in a one-size-fits-all form, but should instead be tailored for effectiveness to specific categories of financial decision-makers.

Although CBA can in principle deal with the reality that most regulations impose uneven benefits and impose unequal costs on different subpopulations, indexed by their age, ethnicity, income, race, sex, and wealth by differential weighting of costs and benefits across these subgroups of people, CBA privileges those costs and benefits that are not emotional impacts. A desirable and important feature of analyzing affective and subjective well-being is being able to explicitly acknowledge and evaluate regulations that are likely to provide different affective impacts upon people of different ages, ethnicities, genders, and races. There is a large amount of evidence that non-financial risk perceptions generally vary across gender and race.[264]

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260. Jeffrey J. Rachlinski, *Cognitive Errors, Individual Differences, and Paternalism*, 73 U. Chi. L. Rev. 207, 229 (2006).

261. Quinn Kennedy & Mara Mather, *Aging, Affect, and Decision Making*, *in* Do Emotions Help or Hurt Decision Making?: A Hedgefoxian Perspective 245 (Kathleen D. Vohs et al. eds., 2007).

262. Luigi Guiso et al., *The Role of Social Capital in Financial Development*, 94 Am. Econ. Rev. 526, 544–45 (2004).

263. *See* Luigi Guiso et al., *People's Opium? Religion and Economic Attitudes*, 50 J. Monetary Econ. 225, 228 (2003).

264. *See* Richard J. Bord & Robert E. O'Connor, *The Gender Gap in Environmental Attitudes: The Case of Perceived Vulnerability to Risk*, 78 Soc. Sci. Q. 830 (1997) (presenting survey data evidence that women are more concerned than men about environmental risks for global warming and hazardous chemical waste sites); Debra J. Davidson & William R. Freundenberg, *Gender and Environmental Risk Concerns: A Review and Analysis of Available Research*, 28 Env't & Behav. 302, 309–16 (1996) (analyzing the results of seventy-five published

In addition to explicit measures of affective variables, there is also research about people's implicit associations, attitudes, and cognitions.[265] Recent implicit measures of life satisfaction permit analysis of cultural and ethnic differences in subjective well-being.[266] Similarly, implicit measures of risk attitude facilitate analysis of whether there are gender differences in risk behavior.[267] Finally, implicit measures of law-abidingness facilitate research about gender differences in an individual's propensity to abide by laws.[268]

D. Regulating Timing of Voluntary Securities Disclosures

All the above considerations about affective and subjective well-being impacts of mandated securities disclosures also will apply to SEC rules that regulate the timing of certain voluntary securities information disclosures. A motivation for such rules as the prohibitions against so-called gun-jumping in registered public offerings is the propensity for people who receive more favorable information first and then less favorable information second to behave differently than if they receive both more and less favorable information simultaneously. While this is a legitimate concern, the focus of gun-jumping is on the cognitive impacts of selective versus non-selective disclosures. Analyzing affective and subjective well-being impacts of such rules should and would also incorporate such affective impacts of selective versus non-selective disclosures as fear about possibly not yet disclosed bad news and relief over learning at once about both good prospects and bad "risk factors" of a particular security.

There is experimental evidence that people accelerate negative experiences to avoid dreading them and delay positive experiences to enjoy savoring them.[269] This data means that investors can speed up or delay their investment decisions in response to perceived bad or good news from disclosures. There is also robust experi-

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reports and studies about gender and environmental risk attitudes); Melissa L. Finucane et al., *Gender, Race, and Perceived Risk: The 'White Male' Effect*, 2 HEALTH RISK & SOC'Y 159, 163–69 (2000) (presenting survey data about how people of different races and genders perceive risks); James Flynn et al., *Gender, Race, and Perception of Environmental-Health Risks*, 14 RISK ANALYSIS 1101 (1994) (finding race and gender differences in risk perception in the U.S.); Dan M. Kahan et al., *Culture and Identity-Protective Cognition: Explaining the White-Male Effect in Risk Perception*, 4 J. EMPIRICAL LEGAL STUD. 465 (2007) (proposing cultural status anxiety to explain the "white male effect"); Theresa A. Satterfield et al., *Discrimination, Vulnerability, and Justice in the Face of Risk*, 24 RISK ANALYSIS 115, 124–27 (2004) (reexamining "the white male effect").

265. *See* Marianne Bertrand et al., *Implicit Discrimination*, 95 AM. ECON. REV. 94 (2005). *See generally* Welcome to Project Implicit, https://implicit.harvard.edu/implicit/research/ (last visited Feb. 10, 2008).

266. *See* Do-Yeong Kim, *The Implicit Life Satisfaction Measure*, 7 ASIAN J. SOC. PSYCHOL. 236, 257–58 (2004).

267. *See* Richard Ronay & Do-Yeong Kim, *Gender Differences in Explicit and Implicit Risk Attitudes: A Socially Facilitated Phenomenon*, 45 BRIT. J. SOC. PSYCHOL. 397 (2006).

268. B. Atwood & Do-Yeong Kim, Gender Differences in Explicit and Implicit Law-Abidingness (2005) (unpublished manuscript).

269. George Loewenstein, *Anticipation and the Valuation of Delayed Consumption*, 97 ECON. J. 666, 670 (1987). *See generally* Yuval Rottenstreich & Christopher K. Hsee, *Money, Kisses, and Electric Shocks: On the Affective Psychology of Risk*, 12 PSYCHOL. SCI. 185 (2001).

mental evidence that people utilize a peak-end rule to form global retrospective evaluations of their affective experiences over time.[270] In other words, an individual's global retrospective affective evaluation of an experience over time is not equal to merely the sum (or integral) of momentary affective experiences, but instead equals the average of peak affective response and ending affective response. This finding suggests that investors have a preference for improving sequences of securities disclosures and outcomes. Many experimental studies in other contexts already have demonstrated that people have a preference for improving profiles of experiences.[271]

E. Regulating Audiences of Voluntary Securities Disclosures

Related to restrictions on when securities issuers may engage in voluntary securities disclosures are regulations mandating to whom securities issuers may engage in voluntary securities information transmission. An example is Regulation FD (Fair Disclosure), which the SEC promulgated in 2000 and which prohibits securities issuers from making certain securities disclosures to selected analysts before they are made publicly.[272] A pair of mantras often made by Congress, judges, and SEC regulators is that of keeping or making securities markets a "level playing field,"[273] and protecting or promoting the integrity of securities markets. Both of these mantras have strong emotional appeal because they suggest that a goal of securities regulation is to make securities markets a safe place for investing by apocryphal widows and orphans. These mantras also show up in the federal common law of insider trading and jurisprudence of Rule 10b-5,[274] because outsiders fear that insiders will take informational advantage of informationally challenged outsiders. But are recitations of these mantras just merely rhetoric calculated to garner emotional appeal?

The SEC should measure and quantify affective impacts of alternative securities disclosures upon the confidence, faith, and trust of different audiences of both investors and non-investors by examining how various policies directly affect investor and non-investor anxiety or stress, and in so doing indirectly affect such traditional economic and financial variables as prices, volatility, and volume of securities. Experimental research provides insights about how trust affects investor

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270. Daniel Kahneman, *Objective Happiness*, *in* Well-Being: The Foundations of Hedonic Psychology 19–21 (Daniel Kahneman et al. eds., 1999).

271. *See* George Loewenstein & Nachum Sicherman, *Do Workers Prefer Increasing Wage Profiles?*, 9 J. Lab. Econ. 67, 69 (1991); George F. Loewenstein & Drazen Prelec, *Preferences for Sequences of Outcomes*, 100 Psychol. Rev. 91 (1993). *See generally* Nick Wilkinson, An Introduction to Behavioral Economics 208–09 (2008).

272. 17 C.F.R. § 243 (2006); Selective Disclosure and Insider Trading, Securities Act Release No. 7,881, Exchange Act Release No. 43,154, Investment Company Act Release No. 24,599, 65 Fed. Reg. 51,716 (Aug. 24, 2000) (to be codified at 17 C.F.R. pts. 240, 243, 249).

273. Literally and naturally, this metaphor raises a drainage problem because a level playing field will not drain by itself.

274. 17 C.F.R. § 240.10b-5.

behavior,[275] and how to prevent fraud in laboratory settings.[276] Empirical research finds that different potential audiences of securities disclosures exhibit different investment behavior. For example, more optimistic people invest more in individual stocks and save more,[277] and more social people (that is, those who attend church and visit their neighbors) are more likely to purchase stocks.[278]

F. Overall Affect from a System of Securities Regulations

The above discussion about fears over bad consequences resulting from inequities in information highlights an important feature of a system of securities regulation as opposed to a system's constituent individual regulations. There is an emotional sense of well-being or peace of mind from knowing that an overarching regulatory system exists. Such a state of calmness is distinct from any specific emotional impacts that specific regulations might produce. Such senses of ease or uneasiness exist not only about financial risks, but also non-financial risks, such as that from the mad cow disease, Bovine Spongiform Encephalopathy.[279] Of course, such an affective sense of security might be false and lead investors to invest only in (U.S.) securities, and insufficiently diversify their portfolios across other non-(U.S. security) financial assets.[280] What both media coverage and individual investors focus most of their attention upon is a big picture of securities regulation or its lack thereof because they lack the required interest, patience, skills, and time for closer examination and more detailed study.

Securities analysts, issuers, lawyers, and professional investors have the abilities, incentives, resources, and training required to analyze specific regulations and changes in them. But a big picture gestalt view of a system of securities regulation means that public appearances might be as or even more important than private realities in terms of affective impacts. The triumph of appearance over substance occurs not only in securities regulation, but also in matters involving foreign policy, international relations, and terrorism.[281] A concern for keeping up appearances of doing something can explain prosecutorial decisions to investigate such high-

275. Amy K. Choy & Ronald R. King, Independence, Trust, and Justice: An Experimental Investigation 3 (2006) (unpublished manuscript, *available at* http://ssrn.com/abstract=892332).

276. Michael Daniel Guttentag et al., "Sarbanes-Oxley in the Laboratory: Using Experimental Economics to Study Fraud Prevention," Presentation at the American Association of Law and Economics (May 5, 2006), *available at* http://www.amlecon.org/2006_program.pdf.

277. Manju Puri & David T. Robinson, *Optimism and Economic Choice*, 86 J. FIN. ECON. 71, 73 (2007).

278. *See* Harrison Hong et al., *Social Interaction and Stock-Market Participation*, 59 J. FIN. 137 (2004).

279. *See, e.g.*, John Eldrige & Jacquie Reilly, *Risk and Relativity: BSE and the British Media*, *in* THE SOCIAL AMPLIFICATION OF RISK 138 (Nick F. Pidgeon et al. eds., 2003); Douglas Powell, *Mad Cow Disease and the Stigmatization of British Beef*, *in* RISK, MEDIA, AND STIGMA: UNDERSTANDING PUBLIC CHALLENGES TO MODERN SCIENCE AND TECHNOLOGY 219 (J. Flynn et al. eds., 2001).

280. *See* Henry T.C. Hu, *Faith and Magic: Investor Beliefs and Government Neutrality*, 78 TEX. L. REV. 777, 840–50 (2000).

281. Jules Lobel & George Loewenstein, *Emote Control: The Substitution of Symbol for Substance in Foreign Policy and International Law*, 80 CHI.-KENT L. REV. 1045, 1047 (2005).

profile celebrities as Martha Stewart for alleged securities fraud upon her shareholders caused by her declarations of not having committed insider trading,[282] or Leona Helmsley for mail fraud and tax evasion.[283]

G. *Unconscious Affect and Securities Investing*

The above paragraph is reminiscent of 1972 economics Nobel Laureate Kenneth Arrow's trichotomy of decision areas or categories, namely active, monitored, and passive.[284] Because conscious attention is a scarce resource for all humans, most individual investors are consciously processing information about very few securities, while monitoring "out of the corner of their eyes" a few more securities that are related in some way, and passively ignoring the vast majority of securities. In a world of limited attention, media coverage should affect securities prices and trading. Recent research finds empirical evidence that media coverage is correlated with stock price responses to earnings announcements.[285] There is also empirical data indicating a relationship between media coverage and mutual fund flows.[286] Media coverage may play an important role in corporate governance reforms[287] because as Justice Louis Brandeis famously said: "[p]ublicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of disinfectants; electric light the most efficient policemen."[288] There is evidence of greater pro-company bias in media coverage during stock market booms than busts.[289]

Recent empirical research also has investigated roles that attention plays in financial investment.[290] If people do not focus their conscious attention, they often utilize their unconscious attention. Affective responses are often automatic, reflexive, and unconscious, as opposed to deliberative responses that are controlled, reflec-

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282. *See, e.g.*, Donald C. Langevoort, *Reflections on Scienter (and the Securities Fraud Case Against Martha Stewart that Never Happened)*, 10 LEWIS & CLARK L. REV. 1, 3–5 (2006).

283. *See, e.g.*, Joseph P. Fried, *U.S. Jury Finds Helmsley Guilty Of Tax Evasion But Not Extortion*, N.Y. TIMES, Aug. 31, 1989, at A1; William Glaberson, *Helmsley Gets 4-Year Term For Tax Fraud*, N.Y. TIMES, Dec. 13, 1989, at B1.

284. ARROW, *supra* note 7, at 50–51 (introducing this classification and providing an illustrative individual investor example).

285. Alexander Dyck & Luigi Zingales, The Media and Asset Prices (Aug. 1, 2003) (unpublished manuscript, *available at* http://gsbwww.uchicago.edu/fac/luigi.zingales/research/PSpapers/media.pdf).

286. Erik R. Sirri & Peter Tufano, *Costly Search and Mutual Fund Flows*, 53 J. FIN. 1589, 1614–16 (1998).

287. Alexander Dyck & Luigi Zingales, *The Corporate Governance Role of the Media*, *in* THE RIGHT TO TELL: THE ROLE OF MASS MEDIA IN ECONOMIC DEVELOPMENT 107 (The World Bank ed., 2002).

288. LOUIS D. BRANDEIS, OTHER PEOPLE'S MONEY AND HOW THE BANKERS USE IT 1 (Brandeis Sch. of Law ed., 2004), *available at* http://library.louisville.edu/law/brandeis/opm-ch5.html.

289. Alexander Dyck & Luigi Zingales, *The Bubble and the Media*, *in* CORPORATE GOVERNANCE AND CAPITAL FLOWS IN A GLOBAL ECONOMY 83 (Peter Cornelius & Bruce Kogut eds., 2003).

290. *See* Brad M. Barber & Terrance Odean, *All that Glitters: The Effect of Attention and News on the Buying Behavior of Individual and Institutional Investors*, 21 REV. FIN. STUD. 785 (2008); David Hirshleifer & Siew Hong Teoh, *Limited Attention, Information Disclosure, and Financial Reporting*, 36 J. ACCT. & ECON. 337, 338 (2003); Lin Peng & Wei Xiong, *Investor Attention, Overconfidence and Category Learning*, 80 J. FIN. ECON. 563, 564 (2006).

tive, and conscious.[291] In fact, "feelings of emotion provide conscious information about the results of such unconscious appraisals."[292] If information processing resources are limited, spontaneously evoked affective reactions, instead of consciously deliberated cognitions, tend to have a larger impact on choice. Individuals then may invest in a security, which is superior upon some more affective dimensions, but inferior along other more cognitive dimensions. Finally, a recent model of investors paying selective attention to information predicted and found support in three Scandinavian data sets that investors will check on the value of their portfolios more frequently in rising markets, but will behave like ostriches hiding their heads in sand when markets are falling or flat.[293] In this model, learning the value of an investor's portfolio not only provides more information, but also increases the psychological impact of information on utility.

H. Financial Literacy and Securities Educational Campaigns

There is evidence of both widespread financial illiteracy in the United States and links between financial illiteracy and financial mistakes, restricted stock market participation, and lack of retirement planning.[294] Recent empirical research found that people who plan for their retirement accumulate more wealth than individuals who do not.[295] But, as educators, parents, siblings, aunts, uncles, and former students, we certainly should know that not everyone processes information uniformly in terms of their comprehension and pace of learning. Individuals possess different affective styles and personalities that influence the speeds at and manners in which they learn. Just as individual patients have different learning styles towards health and medical information, individual investors have different learning styles towards financial information. For example, recent empirical research found that some families filing for bankruptcy are highly motivated and optimistic to learn from a financial education course, while other families filing for bankruptcy

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291. *See* Matthew D. Lieberman, *Reflexive and Reflective Judgment Processes: A Social Cognitive Neuroscience Approach*, *in* SOCIAL JUDGMENTS: IMPLICIT AND EXPLICIT PROCESSES 44–67 (J.P. Forgas et al. eds., 2003), *available at* http://www.scn.ucla.edu/pdf/SydneyDM.pdf.

292. Gerald L. Clore, *For Love or Money: Some Emotional Foundations of Rationality*, 80 CHI.-KENT L. REV. 1151, 1159 (2005).

293. Niklas Karlsson et al., The 'Ostrich Effect': Selective Attention to Information About Investments 3 (May 5, 2005) (unpublished manuscript, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=772125).

294. Annamaria Lusardi & Olivia S. Mitchell, *Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education*, BUS. ECON., Jan. 2007, at 35, 39; Annamaria Lusardi, Financial Literacy: An Essential Tool for Informed Consumer Choice? (Nov. 2007) (unpublished manuscript, *available at* http://www.dartmouth.edu/~alusardi/Papers/Literacy_Tool.pdf); *see also* Lewis Mandell, *Financial Literacy: Does It Matter?*, *in* FINANCIAL LITERACY FOR CHILDREN AND YOUTH (Thomas A. Lucey & Kathleen S. Cooter eds., 2008).

295. Annamaria Lusardi & Olivia S. Mitchell, *Baby Boomer Retirement Security: The Roles of Planning, Financial Literacy, and Housing Wealth*, 54 J. MONETARY ECON. 205, 214–15 (2007).

are quite resistant and skeptical about learning from a financial education course.[296] Financial literacy education that is touted to be a form of investor democratization and empowerment is an example of a policy that has both positive and negative affective impacts. It induces a short-term positive affective response, but is likely to be akin to an opiate for the masses because people think that they have learned something and therefore undertake more financial risks, but in reality they really know very little still and if the value of their financial purchases crash they are likely to suffer a longer-term affective response of blaming themselves for the fallout. Professor Lauren Willis makes compelling arguments against regulators attempting to increase financial literacy. She points out quite rightly so that people "generally do not serve as their own doctors and lawyers and for reasons of efficient division of labor alone, generally should not serve as their own financial experts."[297] She also reviews what empirical data there is and concludes there is negligible statistically significant empirical support for financial literacy education being effective.[298]

People range in their financial comfort level from anxiety and avoidance,[299] to compulsion and obsession.[300] This means that financial literacy not only has to be taught, but also learned. Because financial knowledge has public good aspects, and financial misinformation has public bad characteristics, in terms of spillover economic and financial effects on society, there are likely to be well-known market failures when private firms provide such information. There is also evidence that conducting financial education at workplaces has desirable impacts in terms of higher participation in employee-directed pension plans and greater savings.[301]

There is recent experimental evidence that competing affective information influences less numerate people more than highly numerate people,[302] and that highly numerate people and less numerate people retrieve different affective meaning

296. Deborah Thorne & Katherine M. Porter, *Financial Education for Bankrupt Families: Attitudes and Needs* 1–6 (Univ. of Iowa Legal Studies, Res. Paper No. 07-30, 2007), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1032968.

297. *See* Lauren E. Willis, *Against Financial Literacy*, 94 IOWA L. REV. (forthcoming Nov. 2008). *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1105384 (arguing that although the vision of an educated investing public is powerfully seductive, it also is one lacking empirical support).

298. Lauren E. Willis, *Evidence and Ideology in Assessing the Effectiveness of Financial Literacy Education* (Univ. Penn. Law Sch. Public Law Res. Paper No. 08-08), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1098270 (identifying pervasive and serious limitations in the current empirical work that regulators use as evidence to support financial literacy education programs).

299. *See generally* Alan B. Krueger, Are We Having More Fun Yet? Categorizing and Evaluating Changes in Time Allocation (2007) (unpublished manuscript) (documenting evidence that many Americans find household management and financial planning to be quite painful and stressful).

300. *See Mad Money* (CNBC television show).

301. B. Douglas Bernheim & Daniel M. Garrett, *The Effects of Financial Education in the Workplace: Evidence from a Survey of Households*, 87 J. PUB. ECON. 1487, 1488 (2003); Esther Duflo & Emmanuel Saez, *Participation and Investment Decisions in a Retirement Plan: The Influence of Colleagues' Choices*, 85 J. PUB. ECON. 121, 122 (2002); Esther Duflo & Emmanuel Saez, *The Role of Information and Social Interactions in Retirement Plan Decisions: Evidence from a Randomized Experiment*, 122 Q.J. ECON. 815, 816 (2003).

302. Ellen Peters et al., *Numeracy and Decision Making*, 17 PSYCHOL. SCI. 407, 410–11 (2006) (presenting this data).

from probabilities and numerical comparisons.[303] Due to innumeracy,[304] many individuals experience anxiety towards mathematics and learning subjects involving mathematics, such as economics and finance. Additionally, financial and non-financial media coverage of economic and finance matters tends to be alarmist.[305] For example, some investors, politicians, and even financial regulators have a fear of those financial instruments that are called financial derivatives,[306] without understanding them because they recall hearing about financial derivatives being involved with several high-profile corporate and municipal bankruptcies.[307] To be clear, financial derivatives can be misused, but they also can be utilized for financially legitimate and sound reasons.[308]

There are reasons to focus educational initiatives and informational campaigns especially on two particularly vulnerable populations, namely individuals who are "at-risk" of having financial problems and novel financial decision-makers, such as young people. Since 2001, the Credit Card Project of the Saint Paul Foundation has been engaging in and researching such targeted financial education initiatives.[309] As part of this project, the University of Minnesota Department of Family Social Science Professor Virginia Zuiker developed an online one-credit course about credit card management.[310] Another part of this project is entitled "What's My Score," a public awareness and educational campaign that is designed to help college students realize that credit scores are so crucial for their careers and lives that they should manage them like they manage their grade point averages.[311]

In addition to providing optional financial education to college students, it might be sensible to provide optional or even mandatory financial education to high school students. Empirical evidence suggests that financial education even can be offered successfully to elementary school children.[312] There are not only cognitive benefits in requiring high school students to enroll in a course in financial

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303. *Id.* at 411–12.

304. *See generally* JOHN ALLEN PAULOS, INNUMERACY: MATHEMATICAL ILLITERACY AND ITS CONSEQUENCES (2001).

305. MARC SIEGEL, FALSE ALARM: THE TRUTH ABOUT THE EPIDEMIC OF FEAR (2005).

306. *See generally* René M. Stulz, *Should We Fear Derivatives?*, 18 J. ECON. PERSP. 173, 190–91 (2004) (answering the question in its title in the negative).

307. Peter H. Huang et al., *Derivatives on TV: A Tale of Two Derivatives Debacles in Prime-Time*, 4 GREEN BAG 2d 257 (2001).

308. *See generally* JOHN MARTHINSEN, RISK TAKERS: USERS AND ABUSES OF FINANCIAL DERIVATIVES (2d ed. 2008).

309. Kimberly M. Gartner & Elizabeth R. Schiltz, *What's Your Score? Educating College Students About Credit Card Debt*, 24 ST. LOUIS U. PUB. L. REV. 401, 419–31 (2005).

310. University of Minnesota, Freshman Survival Skills: Advice From Those Who've Been There, http://www.collegelife.umn.edu/fsos.html (last visited Feb. 10, 2008).

311. Whatsmyscore.org, http://www.whatsmyscore.org/ (last visited Feb. 10, 2008).

312. Margaret S. Sherraden et al., *School-Based Children's Saving Accounts for College: The* I Can Save *Program*, 29 CHILD. & YOUTH SERVS. REV. 294 (2007); *see also* Lewis Mandell, *Teaching Young Dogs Old Tricks: The Effectiveness of Intervention in Pre-High School Grades*, *in* FINANCIAL LITERACY FOR CHILDREN AND YOUTH, *supra* note 294.

decision-making,[313] or more generally decision-making;[314] but also there are likely to be affective impacts in terms of less worry about financial matters from better understanding of and a sense of control over them. The Decision Education Foundation is an example of a 501(c)(3) non-profit organization dedicated to providing instruction at decision-making skills to at-risk students, low-income students, and even gifted students.[315] An example of a private sector financial educational initiative is Visa's website, Practical Money Skills for Life.[316]

It also might be helpful for most high school students to learn financial judgment and skills if they practice making financial decisions in environments that simulate real-life investing.[317] Similar concerns apply to making high school driver education occur in more realistic scenarios than is typically done, for example with the latest popular music playing, perhaps too loudly and passengers in the front and back seats talking, possibly also too loudly. Poor financial decision-making and judgment could involve habits that are very easy to pick up, but quite hard to undo due to irreversible or very costly to reverse consequences.

To be effective, teachers of basic financial ideas can and should make learning engaging, fun, and relevant.[318] As with other types of problem solving, financial problem solving is best mastered by repeated learning involving doing, reflecting, discussing, teaching others, and repeating. Individuals can accomplish much of their investing and retirement planning via user-friendly computer software or web-based interactive programs.[319] A possible concern is whether teachers making financial education fun could mislead students into failing to appreciate the seriousness of investing and irreversibility of financial ruin that can result from ill-conceived choices and mistaken assumptions. Such dangers exist if students treat investing like playing a video game, whose initial values they can reset by declaring

313. *See* B. Douglas Bernheim et al., *Education and Saving: The Long-Term Effects of High School Financial Curriculum Mandates*, 80 J. PUB. ECON. 435 (2001).

314. *See* JONATHAN BARON ET AL., GOING THROUGH THE GOOP: AN INTRODUCTION TO DECISION MAKING (1989), *available at* http://www.sas.upenn.edu/~baron/dmtext.htm; JONATHAN BARON & REX V. BROWN, TEACHING DECISION MAKING TO ADOLESCENTS (1991); DAVID R. HENDERSON & CHARLES L. HOOPER, MAKING GREAT DECISIONS IN BUSINESS AND LIFE (2006).

315. *See Decision Education Foundation Helps Youths Develop Decision-Making Skills*, SDG, Oct. 26, 2001, http://www.sdg.com/home.nsf/sdg/AboutSDG—News—DEFHelpsYouthsDevelopSkills; Decision Education Foundation, Welcome to DEF, http://decisioneducation.org/ (last visited Feb. 10, 2008).

316. Practical Money Skills for Life, http://www.practicalmoneyskills.com/english/index.php (last visited Feb. 10, 2008).

317. *See* Welcome to MoneySKILL, http://www.moneyskill.org (last visited Feb. 10, 2008) (providing a free, online, interactive textbook including two real-life simulations).

318. *See, e.g.*, BARBARA SHOTWELL & NANCY RANDOLPH GREENWAY, PASS IT ON: A PRACTICAL APPROACH TO THE FEARS AND FACTS OF PLANNING YOUR ESTATE (2000).

319. *See, e.g.*, Financial Engines, https://www.financialengines.com/FeContent?act=welcome (last visited Feb. 10, 2008) (a personalized investment advisory service co-founded by William F. Sharpe, 1990 Nobel Prize-winning economist, Joseph A. Grundfest, William A. Franke Professor of Law and Business at Stanford Law School and Commissioner of the SEC 1985 to 1990, and Craig W. Johnson, founder and chairman of Venture Law Group).

personal bankruptcy upon insolvency. As is true with education in other contexts and life in general, being mindful rather than mindless prevents accidents.[320]

Another concern is that people will not learn because of the black swan problem, which Nassim Taleb defined to be a random event satisfying three properties: an extremely large impact, a small but incomputable probability ex ante, and surprise effect.[321] A related danger is that some youths could become addicted to taking excessive financial risks because of the adrenalin rush, visceral thrills, and similarity to gambling. There is empirical data finding that many young people start to smoke without fully understanding the consequences of doing so and become addicted to cigarettes because of affective and visceral influences.[322] Such research suggests developing financial educational campaigns that go beyond just providing information for people's cognitive, deliberative systems to making visceral appeals to people's affective, emotional systems.[323] Graphically and visually depicting adverse consequences of bad credit, bankruptcy costs, financial ignorance, and monetary ruin might scare people into developing financial acumen, curiosity, experience, and knowledge. Another possibility is to have adults with bad credit histories talk with financially at-risk youths. This type of targeted interactive dialogue is akin to adolescents potentially at-risk for becoming criminals being "scared straight" by visiting prison inmates in jail. In addition to direct information provision via public service advertisements, such as anti-smoking campaigns, government agencies can also disseminate such independent media coverage as an investigative public broadcasting documentary concerning the U.S. credit card industry, which won the Emmy Award for Outstanding Investigative Journalism 2004–05.[324] Such a financial education "scared straight" approach uses a negative affective response of fear to induce a positive response of motivation, but fear can also lead to paralysis and rushed or truncated decision-making. In truth fear probably does both, but in different measures in different people.

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320. *See generally* ELLEN J. LANGER, MINDFULNESS (1990); ELLEN J. LANGER, THE POWER OF MINDFUL LEARNING (1997).

321. NASSIM NICHOLAS TALEB, FOOLED BY RANDOMNESS: THE HIDDEN ROLE OF CHANCE IN LIFE AND IN THE MARKETS 12 (2d ed. 2004).

322. George Loewenstein, *A Visceral Account of Addiction*, *in* SMOKING: RISK, PERCEPTION & POLICY 188 (Paul Slovic ed., 2001); Paul Slovic, *Cigarette Smokers: Rational Actors or Rational Fools?*, *in* SMOKING: RISK, PERCEPTION, & POLICY, *supra*, at 97; Paul Slovic, *Rational Actors and Rational Fools: The Influence of Affect on Judgment and Decision Making*, 6 ROGER WILLIAMS U. L. REV. 163, 200–01 (2000).

323. Jon D. Hanson & Douglas A. Kysar, *The Joint Failure of Economic Theory and Legal Regulation*, *in* SMOKING: RISK, PERCEPTION, & POLICY, *supra* note 322, at 229, 271–73.

324. *Frontline: Secret History of the Credit Card* (PBS television broadcast Nov. 23, 2004), *available at* http://www.pbs.org/wgbh/pages/frontline/shows/credit/view/.

I. *Financial and Securities Default Rules*

There is a vast legal literature about default rules.[325] Because of inertia, default rules are often very powerfully sticky.[326] A natural human tendency is to not rock the boat, or at least to value compliance with rules and norms.[327] Part of our status quo bias can be due to human satisficing and conserving on their cognitive resources. But, another reason that most people will feel complacency towards defaults or feel that there must be a reason for defaults to be set as they are is affective.[328] Empirical and experimental research about various default rules across countries and on-line has considered emotional costs upon those opting away from defaults in alternative organ donation programs.[329] Experiments involving organ donations and retirement savings indicate that at least for those domains, people tend to view defaults as policymakers' implicit recommendations or decision-making advice.[330]

Brigitte Madrian and Dennis F. Shea demonstrated the power of automatic enrollment in a company's 401(k) plan when employee's 401(k) plan enrollment rates jumped from 49% to 86% upon introducing automatic enrollment as their default.[331] Behavioral economists Richard H. Thaler and Shlomo Benartzi ingeniously utilize inertia from defaults in a financial setting to develop another plan that encourages retirement saving by employees.[332] Under their prescriptive savings plan, Save More Tomorrow, also known as the SMarT plan, employees pre-commit to dedicating 3% of all future pay raises to retirement savings. Thaler testified before a Senate Committee panel on how to help American workers save more based upon lessons from behavioral economics generally and empirical data and experience with implementing SMarT particularly.[333]

A natural field experiment that occurred in the two neighboring states of New Jersey and Pennsylvania demonstrates very starkly how powerfully sticky defaults can be. Both state legislatures enacted tort reform laws requiring automobile insur-

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325. Ian Ayres & Robert Gertner, *Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules*, 99 Yale L.J. 87 (1989); Lucian Arye Bebchuk & Assaf Hamdani, *Optimal Defaults for Corporate Law Evolution*, 96 Nw. U. L. Rev. 489 (2002). *But see* Eric Maskin, *On the Rationale for Penalty Default Rules*, 33 Fla. St. U. L. Rev. 557 (2006) (critiquing Bebchuk & Gertner's rationale for penalty default rules).

326. *See generally* Richard H. Thaler & Cass R. Sunstein, Nudge: Improving Decisions About Health, Wealth, and Happiness (2008).

327. *See* Dan M. Kahan, *Gentle Nudges vs. Hard Shoves: Solving the Sticky Norms Problem*, 67 U. Chi. L. Rev. 607 (2000).

328. *See* Ward Farnsworth, *Do Parties to Nuisance Cases Bargain After Judgment? A Glimpse Inside the Cathedral*, 66 U. Chi. L. Rev. 373, 384 (1999) (finding that bargaining did not occur after judgment in a sample of twenty nuisance lawsuits).

329. Eric J. Johnson & Daniel Goldstein, *Do Defaults Save Lives?*, 302 Sci. 1338 (2003).

330. Craig R.M. McKenzie et al., *Recommendations Implicit in Policy Defaults*, 17 Psychol. Sci. 414, 414 (2006).

331. *See* Brigitte C. Madrian & Dennis F. Shea, *The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior*, 116 Q.J. Econ. 1149, 1179 (2001).

332. Thaler & Benartzi, *supra* note 233, at S170–71.

333. *Helping Americans Save: Hearing Before the J. Economic Comm.*, 108th Cong. 4–7 (2004) (testimony of Dr. Richard H. Thaler).

ance companies to provide coverage with particular types of default rights to sue after car accidents. In New Jersey, the default rule is that insured motorists had a limited right to sue, but could pay higher premiums to receive a full right to sue. In Pennsylvania, the default rule is that insured motorists had a full right to sue, but could pay discounted premiums if they switched to a limited right to sue. Faced with these options, approximately only 20% of New Jersey drivers opted to switch and pay for a full right to sue. In other words, an overwhelming 80% of New Jersey drivers opted to stay with their defaults. Approximately 75% of Pennsylvania drivers opted to keep a full right to sue. In other words, only 25% of Pennsylvania drivers opted to switch from their defaults.[334] There is approximately a four hundred fifty million dollar difference in how much drivers pay for car insurance coverage in these neighboring states.[335]

Affective reactions to particular default items may not only exacerbate, but also counteract such asymmetries if they are sufficiently strong emotional responses. Potential securities issuers can avoid those default rules in U.S. federal securities regulation that are costly in terms of compliance by financial engineering or engaging in regulatory arbitrage by taking advantage of the globalization and internationalization of securities markets. But such avoidance may have emotional impacts in terms of undesirable public relations. Ribstein's call for humble securities regulation avoids these emotional impacts of avoidance by offering companies an option to explain why they are opting out of defaults,[336] or allowing self-certification.[337] A similar point is true of Romano's proposal that permits firms to follow prescribed procedures to opt out of statutory default rules.[338] Just as regulatory defaults may create salience, so can regulatory menus.[339] But salience can evoke affective reactions, some of which may contribute to, while others could also counteract, a default rule's or menu's effectiveness. Differing affective styles across people suggests that a financial regulator should if possible customize or tailor default rules or menus to fit various types of investors and other actors in financial markets.

J. Continual Corporate Governance Reforms

Consider these reflections about Clark's meditation on lessons that one can and should learn from the recent experience of making changes in U.S. corporate gov-

334. Eric J. Johnson et al., *Framing, Probability Distortions, and Insurance Decisions*, 7 J. RISK & UNCERTAINTY 35, 48 (1993) (documenting this phenomenon); *see also* Camerer et al., *supra* note 252, at 1227 n.45 (offering possible alternative signaling or costly information explanations for this phenomenon).

335. Kahneman, *supra* note 270, at 6.

336. Ribstein, *Sarbanes-Oxley After Three Years*, *supra* note 2.

337. Ribstein, *Sarbox: The Road to Nirvana*, *supra* note 2, at 296.

338. Romano, *supra* note 2, at 1596.

339. *See* Ian Ayres, *Menus Matter*, 73 U. CHI. L. REV. 3 (2006); Yair Listokin, *What Do Corporate Default Rules and Menus Do? An Empirical Examination* (Yale Law & Econ. Research, Paper No. 335, 2006), *available at* http://ssrn.com/abstract=924578.

ernance.[340] Clark observed that a more deliberative, rational, and knowledge-based regulatory process is unlikely to be realistic in part due to widespread outrage in response to regulatory failures and loud clamoring for major changes. Clark observed that reformist impulses are based primarily upon emotions that motivate actions.[341] Clark proposed that regulations (1) enable and require that regulators like the SEC authorize, fund, perform, and perhaps even mandate data collection and empirical analysis studying those regulations over time; (2) empower, encourage, and perhaps even require that regulators reassess some regulations periodically in light of experience and evidence and respond accordingly; and (3) spell out clear timetables for both (1) and (2).

A Chinese proverb that advocates reverence for one's elders states that: "youth is a gift of nature, while age is a work of art." A corollary of this proposition is that we are all works in progress. Along similar lines, Clark's analysis viewed regulations as being all works in progress, which can benefit from periodic opportunities to learn and in light of such learning, revise their current particular content within longer-term general principles. As Clark noted, a serious potential practical problem with such an enlightened regulatory perspective is the strength of a deep-seated human desire for closure, which is particularly strong in the face of moral outrage and reform frenzy. Another affective difficulty that Clark discussed is that emotionally aroused individuals tend to prefer bright-line rules as opposed to vague standards. On the other hand, Clark offered some reasons to hope that his proposal can be implemented by appealing to regulators' natural and understandable desires to look rational and reasonable.

Clark's novel regulatory proposal may reallocate affective impacts over time by possibly delaying certain ones and moving others forward. As is true in general for analyzing affective impacts, it matters relative to what benchmarks affective impacts are measured. An analogue to Clark's "revise and reconsider" procedure is the "revise and resubmit" option that reviewers at many peer-refereed journals can select instead of simply rejecting or accepting some article submission. In this way, Clark offered a compromise between those who passionately and strongly desire reform and those who passionately and strongly resist change. Clark's proposal envisioned an ongoing process of reassessing and revising regulations that is akin to how most people feel and think science usually does and should proceed. But, just as there are scientific revolutions,[342] there could be and perhaps there occasionally should be revolutions in regulatory policy and principles. Clark's proposal is actively experimentalist and scientific in terms of its philosophical approach. It thus appears to represent a stark departure from a legal culture of courts being bound by precedent and legal actors in general respecting stare decisis. But, even within legal culture,

340. *See generally* Clark, *supra* note 2.

341. *See* Lobel & Lowenstein, *supra* note 281, at 1046–48 (warning about dangers of emotional appeals to policy).

342. *See generally* Thomas S. Kuhn, The Structure of Scientific Revolutions (3d ed. 1996).

change sometimes occurs, albeit often slowly and only eventually. For example, landmark cases, such as the U.S. Supreme Court ruling ending school segregation, *Brown v. Board of Education*,[343] often put a legal end to long-standing practices, once those practices are socially perceived no longer to be appropriate.

Clark's proposal for incremental regulation echoed Nobel Laureate Kenneth J. Arrow's observation that "recondite calculation of gains and losses does not lead to great enthusiasm. It does not offer magic solutions to problems. A truly rational discussion of collective action in general or in specific contexts is necessarily complex, and what is even worse, necessarily incomplete and unresolved."[344] Clark's "live and learn" type of regulatory policy and reform is consistent with management applications of real options theory, which formally models how decision-makers can profit from opportunities to adapt behavior in light of learning new information,[345] and viewing lawsuits as real options.[346]

Clark's proposed cautious regulatory gradualism is also consistent with a conceptual framework, experimental research, and empirical results by several behavioral decision theorists.[347] Finally, Clark's view that learning about and improving regulation should be ongoing resonates with recent neuroeconomic research finding that even one-shot individual human choice is a dynamic process.[348] In other words, people continue to engage in evaluations and affective reactions after they already have made their choices. Such post-decision evaluations and feelings in turn influence how they make future choices. These post-decision-making evaluations and feelings also may provide neuroscientific explanations for and foundations of such observed behavioral phenomena as endowment effects and sunk cost reasoning. There is a danger that continual reassessment and reevaluation of regulatory policy might induce a ruminating and stressful organizational and political culture of seeking unattainable perfection as opposed to being satisfied if things are "good enough." Such a danger exists whenever decision-makers are "maximizers"

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343. 347 U.S. 483 (1954).

344. ARROW, *supra* note 7, at 17.

345. *See generally* AVINASH K. DIXIT & ROBERT S. PINDYCK, INVESTMENT UNDER UNCERTAINTY (1994); REAL OPTIONS AND INVESTMENT UNDER UNCERTAINTY (Eduardo S. Schwartz & Lenos Trigeorgis eds., 2004); LENOS TRIGEORGIS, REAL OPTIONS: MANAGERIAL FLEXIBILITY AND STRATEGY IN RESOURCE ALLOCATION (1996).

346. Joseph A. Grundfest & Peter H. Huang, *The Unexpected Value of Litigation: A Real Options Perspective*, 58 STAN. L. REV. 1267, 1271 (2006); Peter H. Huang, *A New Options Theory for Risk Multipliers of Attorney's Fees in Federal Civil Rights Litigation*, 73 N.Y.U. L. REV. 1943, 1946–47 (1998) (deriving a real options-based theory for calculating risk multipliers of attorney's fees in federal civil rights litigation); Peter H. Huang, *Lawsuit Abandonment Options in Possibly Frivolous Litigation Games*, 23 REV. LITIG. 47, 50 (2004) (offering a real options analysis of litigation abandonment options).

347. *See generally* JOHN W. PAYNE ET AL., THE ADAPTIVE DECISION MAKER (1993).

348. *See* John Dickhaut et al., The Role of Differential Outcome Feedback on Transitivity, Heart Rate, Galvanic Skin Response and fMri, Presentation at the Third Annual Meeting of the Society for Neuroeconomics (Sept. 15, 2005).

instead of "satisficers."[349] Thus, it might be fortuitous that organizations such as regulatory agencies, because of their bureaucratic, collective, deliberative, and hierarchical natures, tend to satisfice instead of maximize.

VII. CONCLUSIONS

This Article advocated an accounting, inclusion, measurement, and quantification of affective impacts of securities regulations. This Article analyzed reasons for SEC reliance upon a sort of rhetorical CBA to evaluate and promulgate securities regulations. This Article found that the organizing statutes of the SEC are inconclusive over whether considering "efficiency" mandates that CBA should be the only methodology for choosing among different proposed rules and regulations. CBA does not account for, include, measure, nor quantify affective impacts and thus ignores important information about proposed securities regulations. But, as former Commissioner of Labor Statistics Katherine G. Abraham has pointed out, "[w]ithout accurate information on overall economic conditions, workers, firms, voters, and policymakers are flying blind—or at least peering through a thick fog."[350] This Article addressed conceptual and measurement issues that arise with analyzing the affective impacts of alternative categories of securities and financial regulations: mandatory disclosures; so-called gun-jumping rules in public registered offerings; financial education campaigns; default rules and menus; and statutory provisions that provide for continual reassessment and revision of regulations. Although this Article has focused on incorporating affective impacts into analyzing securities regulations, much of its analysis also applies to non-financial individual and social risks. In fact, much of the contentiousness in assessing costs and benefits in environmental, health, and safety regulations comes from CBA devaluing, ignoring, or simply missing a number of affective impacts and emotional values, including morally based affect in particular. Indeed, affective reactions are likely to be just as, if not more, important for non-financial risks than financial risks.[351] A related article analyzes affective impacts of risk regulation generally.[352]

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349. *See* Barry Schwartz et al., *Maximizing Versus Satisficing: Happiness Is A Matter of Choice*, 83 J. PERSONALITY & SOC. PSYCHOL. 1178 (2002).

350. Katharine G. Abraham, *What We Don't Know Could Hurt Us: Some Reflections on the Measurement of Economic Activity*, J. ECON. PERSP., Summer 2005, at 3.

351. *See* Dan Kahan, *Two Conceptions of Emotion in Risk Regulation*, 156 U. PA. L. REV. 741 (2008); Dan M. Kahan et al., *Affect, Values, and Nanotechnology Risk Perceptions: An Experimental Investigation* 3 (Yale Law Sch., Cultural Cognition Project Working Paper No. 22, 2007).

352. Peter H. Huang, *Diverse Conceptions of Emotions in Risk Regulation, A Response to Two Conceptions of Emotion in Risk Regulation*, 156 U. PA. L. REV. PENNUMBRA 435 (2008), *available at* http://www.pennumbra.com/responses/03-2008/Huang.pdf.